

Wako Product Update

| | page |
|-------------------------------------------|------|
| 1. Research for Alzheimer's Disease | 2 |
| 2. Research for Human Brain | 3 |
| 3. Research for Diabetes | 4 |
| 4. Research for Apoptosis | 5 |
| 5. Research for Bone Metabolism | 6 |
| 6. DNA Extraction | 7 |
| 7. RNase Inactivation Reagent | 8 |

Please visit the Wako Online Catalog
<http://search.wako-chem.com>

Wako

for quantitative determination of β Amyloid peptide 40 and 42

β Amyloid ELISA Kits

Wako Cat. #292-62301 50 tests

Alzheimer's Disease (AD) is characterized by the presence of extracellular senile plaques (SPs) and intracellular neurofibrillary tangles (NFT) in the brain. The major protein component of SPs is β Amyloid peptide ($A\beta$) 40 and 42(43). $A\beta$ 42 is more prone to aggregate than $A\beta$ 40. Therefore the initial $A\beta$ deposition begins with $A\beta$ 42(43) but not with $A\beta$ 40. $A\beta$ 42(43)-positive and $A\beta$ 40-negative plaques may represent early-stage diffuse type SPs, and $A\beta$ 40-positive plaque appears in the advanced stage, especially more often in the cored portion of the mature plaque.

In these kits, we use the monoclonal antibodies which specifically detect $A\beta$. Therefore these kits are designed to be used for the quantitative determination of $A\beta$ in samples such as tissue culture medium, tissue homogenate, CSF and plasma.



[Features]

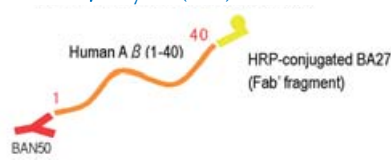
- These kits are designed to be used for the quantitative determination of $A\beta$ in samples such as tissue culture medium, tissue homogenate, CSF and plasma.
- These kits use the monoclonal antibodies that were developed by Takeda Chemicals Industries, Ltd.
 BAN50: Specifically detects the N-terminal of $A\beta$ (1-16)
 BNT77: Specifically detects the $A\beta$ (11-28) of $A\beta$
 BA27: Specifically detects the C-terminal of $A\beta$ 40
 BC05: Specifically detects the C-terminal of $A\beta$ 42

[Kit Contents]

- | | |
|---------------------------------|-----------------------|
| 1) MAb-coated Microtiter Plate | 1 plate |
| 2) Standard Solution | 2 vials \times 2 mL |
| 3) Standard Diluent | 1 vial \times 30 mL |
| 4) Wash Solution (20 \times) | 1 vial \times 50 mL |
| 5) HRP-conjugated MAb Solution | 1 vial \times 12 mL |
| 6) TMB Solution | 1 vial \times 12 mL |
| 7) Stop Solution | 1 vial \times 12 mL |
| 8) Plate Seal | 3 sheets |

[Principle]

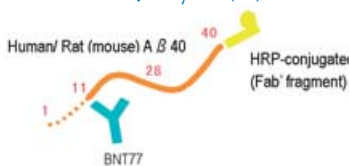
① Human β Amyloid (1-40) ELISA Kit Wako



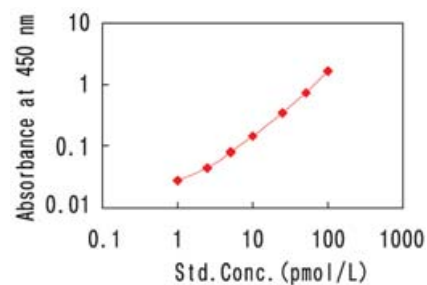
② Human β Amyloid (1-42) ELISA Kit Wako



③ Human/Rat β Amyloid (40) ELISA Kit Wako



④ Human/Rat β Amyloid (42) ELISA Kit Wako



Standard Curve
(Human β Amyloid (1-40) ELISA Kit wako)

[Reference]

- Suzuki N., Cheung TT., Cai XD., Odaka A., Otvos L. Jr., Eckman C., Golde TE. and Younkin SG: *Science*, **264**, 1336 (1994).
- Iwatsubo T., Odaka A., Suzuki N., Mizusawa N. and Ihara Y.: *Neuron*, **13**, 45 (1994).
- Asami-Odaka A., Ishibashi, Y., Kikuchi T., Kitada C. and Suzuki N.: *Biochemistry*, **34**, 10272 (1995).
- Fukumoto H., Tomita T., Matsunaga H., Ishibashi Y., Saido T.C. and Iwatsubo T.: *Neuroreport*, **10**, 2965 (1999).
- Scheuner D., Eckman C., Jensen M., Song X., Citron M., Suzuki N., Bird TD., Hardy J., Hutton M., Kukull W., Larson E., etc.: *Nature Med.*, **2**, 864 (1996).
- Kosaka T., Imagawa M., Seki K., Arai H., Sasaki H., Tsuji S., Asami-Odaka A., Fukushima T., Imai K. and Iwatsubo T.: *Neurology*, **48**, 741 (1997).

| Description | Wako Catalog No. | Package Size | Measured peptide |
|-------------------------------------------------|------------------|--------------|------------------------------------------------------------------------------|
| ① Human β Amyloid (1-40) ELISA Kit wako | 292-62301 | 96 tests | human $A\beta$ (1-40) |
| ② Human β Amyloid (1-42) ELISA Kit wako | 298-62401 | 96 tests | human $A\beta$ (1-42) |
| ③ Human/Rat β Amyloid (40) ELISA Kit wako | 294-62501 | 96 tests | human or rat (mouse) $A\beta$ (x-40) with a truncated or modified N-terminus |
| ④ Human/Rat β Amyloid (42) ELISA Kit wako | 290-62601 | 96 tests | human or rat (mouse) $A\beta$ (x-42) with a truncated or modified N-terminus |

Related Products

| Description | Wako Catalog No. | Package Size | Measured peptide |
|------------------------------------------------|------------------|--------------|---------------------------------------------------------|
| Amyloid β -Protein Immunohistostain Kit | 299-56701 | 50 tests | Distinctive histostaining of $A\beta$ 40 and 42 plaques |
| Phosphorylated Tau Immunohistostain Kit | 299-57301 | 100 tests | Histostaining of Neurofibrillary changed tissues |
| Anti Phosphorylated α -Synuclein, MAb | 014-20281 | 50 μ L | Study on locations of Lewy bodies-related pathology |
| Amyloid β -Protein (1-40) | 019-18761 | 1 mg | human $A\beta$ (1-40) peptide |
| Amyloid β -Protein (1-40), Hydrochloride | 014-18951 | 1 mg | human $A\beta$ (1-40) peptide, hydrochloride |
| Amyloid β -Protein (1-42) | 016-18771 | 0.5 mg | human $A\beta$ (1-42) peptide |
| Amyloid β -Protein (1-42), Hydrochloride | 011-18961 | 1 mg | human $A\beta$ (1-42) peptide, hydrochloride |

Study for Aging Human Brain

Anti Phosphorylated α -Synuclein, Monoclonal Antibody

Wako Cat. # 014-20281 (50 μ L)

Keep at -20°C

α -Synuclein in Lewy bodies (LBs) which are pathognomonic for Parkinson's disease (PD) and dementia with Lewy bodies (DLB) contains the phosphorylated at Ser129. We have launched an antibody which specifically reacts with human α -Synuclein with a phosphorylated Ser129 residue and does not react to human α -Synuclein. This antibody is applicable to immunohistochemical and biological studies on the locations of LB-related pathology.

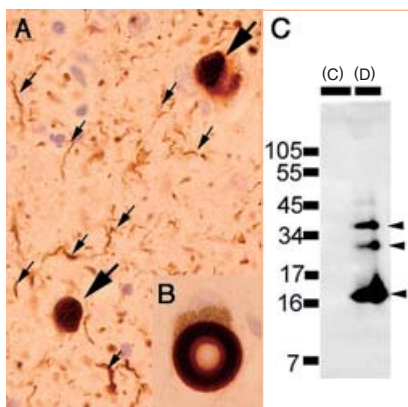
Clone No. : pSyn #64

Subclass : Mouse IgG₁

Specificity: Specific for human α -Synuclein with a phosphorylated Ser129. No cross-react with human α -Synuclein.

Working Dilution : 1 : 1000 ~ 1 : 10000 (Western blot and Immunohistochemistry)

[Immunohistochemistry of synucleinopathy lesions and Western blot analysis]



- A:** Temporal neocortex of DLB brains were immunostained with anti Phosphorylated α -Synuclein. Big arrow (\blacktriangleright) and mini-arrow (\blacktriangleright) indicate LBs and Lewy neurites, respectively.
- B:** Brainstem LBs in pigmented neurons of the substantia nigra in PD.
- C:** Western blot analysis of α -synuclein differentially extracted with urea from cerebral cortices of a patient with DLB (D) and a normal control (C) individual probed with monoclonal antibody pSyn#64 (Anti Phosphorylated α -Synuclein). This antibody strongly reacted with the urea-soluble phosphorylated α -synuclein (\blacktriangleleft) in DLB brains.

[References]

- 1) Fujiwara, H., et al.: *Nature Cell Biology*, **4**, 160, (2002)
- 2) Saito, Y., et al.: *J. Neuropathol Exp Neurol*, **62**, 644 (2003)

[Immunohistochemistry of DLB]

<Materials>

1. Normal Goat Serum for blocking
2. Biotinylated Anti-Mouse IgG
3. ABC solution (Wako Cat. #017-15881)
4. Formic Acid (abt. 99 %)(Wako Cat. #066-00461 (100 mL))
5. Anti Phosphorylated α -Synuclein (Wako Cat. #014-20281)

<Procedure>

deparaffinized section

- ← Formic Acid Treatment for 5 min.
- ← Wash for 5 min.
- ← Wash with PBS-Tween for 2 min.
- ← 0.05 % Trypsin Treatment at 37°C for 15 min.
- ← Wash for 5 min. $\times 2$
- ← Blocking at 37°C for 30 min.
- ← Anti Phosphorylated α -Synuclein ($\times 2000$) at 37°C for 1 hour
- ← Wash with 0.01M PBS-Tween for 2 min. $\times 5$
- ← Biotinylated Antibody, at 37°C for 1 hour
- ← Wash with 0.01 M PBS-Tween $\times 3$
- ← ABC Solution at 37°C for 30 min.
- ← Wash with 0.01 M PBS-Tween $\times 3$

Colored by DAB Reagent

| Description | Grade | Catalog No. | Package Size |
|--------------------------------------------------------------|----------------------|-------------|--------------|
| Anti Phosphorylated α -Synuclein, Monoclonal Antibody | Immunohistochemistry | 014-20281 | 50 μ L |

Rat GLP-2 ELISA Kit *wako*

Proglucagon is processed to GLP1 and GLP2 in intestinal L cells. It is reported that GLP-2 is a neurotransmitter involved in the regulation of food intake.

The kit is able to measure GLP-2 in rat serum and plasma.

[Kit Contents]

- 1) Antibody-coated Microtiter Plate (Anti Rabbit IgG, Goat)..... 1 plate
- 2) Rat GLP-2 Standard..... 50 ng
- 3) Biotinylated Rat GLP-2..... 1 vial
- 4) Anti Rat GLP-2, Rabbit..... 6 mL
- 5) HRP-conjugated Streptavidin..... 12 mL
- 6) Chromogen (OPD Tablet)..... 2 tablets
- 7) Chromogen Diluent Solution..... 26 mL
- 8) Wash Stock Solution(20 ×)..... 50 mL
- 9) Buffer..... 25 mL
- 10) Stop Solution..... 12 mL
- 11) Adhesive Plate Cover..... 3 pieces

[Sensitivity]

Dynamic range : 0.137 - 100 ng/mL

[Measurement time]

Overnight + 1.5 hours

[Sample volume]

25 μ L

[Spike recovery]

109.0-122.8% (Rat serum)

107.8-108.7% (Rat plasma)

[Specificity]

| Peptides | Cross-reactivity (%) |
|------------------------------|----------------------|
| Rat GLP-2 | 100 |
| Human GLP-2 | 105 |
| Rat GLP-2 (14-33) | 36 |
| Rat GLP-2 (1-18) | < 0.1 |
| Human Glicentin | < 0.1 |
| GLP-1 (7-36) NH ₂ | < 0.1 |
| Glucagon | < 0.1 |

[Reference]

Tang-Christensen, M. *et al.*:*Nature Med.*, **6**, 802 (2000).

[Measurement procedure]

Antibody-coated Microtiter Plate

← Biotinylated Rat GLP-2 75 μ L,
Standard solution or sample 25 μ L,
Anti Rat GLP-2, Rabbit 50 μ L

4 °C, Incubate overnight

Wash

← HRP-conjugated Streptavidin 100 μ L

RT (20~30 °C), shake for 1 hour

Wash (× 5)

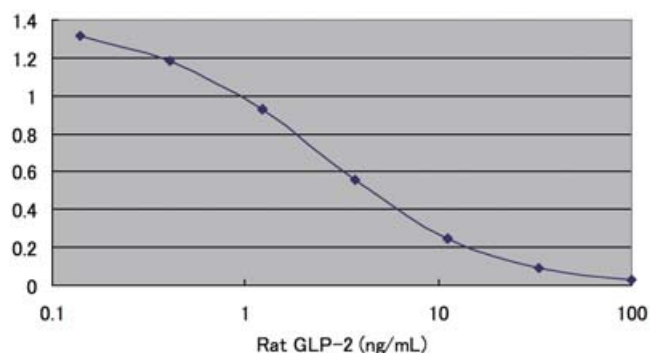
← Chromogen 100 μ L

RT (20~30 °C), Reaction for 30 minutes

← Stop Solution 100 μ L

Absorbance measurement (492 nm)

[Standard curve]



| Description | Grade | Catalog No. | Package Size |
|----------------------------------------|-----------------------|-------------|--------------|
| Rat GLP-2 ELISA Kit <i>wako</i> | for Diabetes Research | 292-60601 | 96 tests |

Related Products

| Description | Grade | Catalog No. | Package Size |
|-----------------------------------------------------------|-----------------------|-------------|--------------|
| GLP-1 (Human, Mouse, Rat) ELISA Kit <i>wako</i> | for Diabetes Research | 291-59201 | 96 tests |
| Glucagon (Human, Mouse, Rat) ELISA Kit <i>wako</i> | for Diabetes Research | 297-57101 | 96 tests |
| Rat C-Peptide ELISA Kit <i>wako</i> | for Diabetes Research | 295-57401 | 96 tests |
| Rat Leptin ELISA Kit <i>wako</i> | for Diabetes Research | 297-57601 | 96 tests |

Apoptosis Detection Kit by TUNEL method

Apoptosis *in situ* Detection Kit wako

The kit is based on TUNEL [Terminal deoxynucleotidyl Transferase(TdT)-mediated dUTP nick end labeling] procedure, that is the addition of fluorescein -dUTP to 3'-terminals of apoptotically fragmented DNA with TdT followed by immunochemical detection using anti-fluorescein antibody conjugated with horseradish peroxidase (POD) and DAB as a substrate.

[Features]

- 1. Rapid detection can be performed.**
The whole process from the de-paraffinizing step to the microscopic examination can be completed in about 2 hours.
- 2. Complicated preparations of various reagents are not needed.**
The kit contains the essential reagents required for detection of apoptosis.
- 3. The kit shows a clear positive image with low background.**

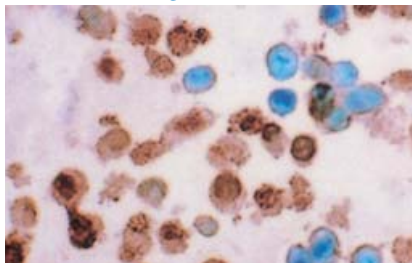
[Applicable samples]

- paraffin-embedded tissue sections
- frozen tissue sections
- neutralized formalin-fixed culture cells

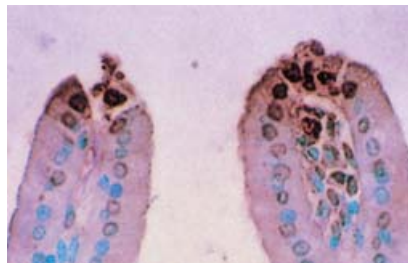
[Kit Contents (approx. 1cm² × 40 reactions)]

| | |
|-------------------------------|-----------------|
| Protein Digestion Enzyme | 1 vial × 1 mL |
| TdT | 1 vial × 40 μL |
| TdT Substrate Solution | 1 vial × 4.4 mL |
| 100 × POD-Conjugated Antibody | 1 vial × 44 μL |
| DAB Solution | 1 vial × 4.4 mL |
| DAB Enhancer | 1 vial × 200 μL |
| DNase I | 1 vial × 4 μL |
| 10 × DNase I Reaction Buffer | 1 vial × 40 μL |

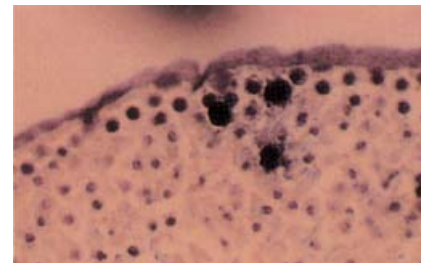
[TUNEL Staining]



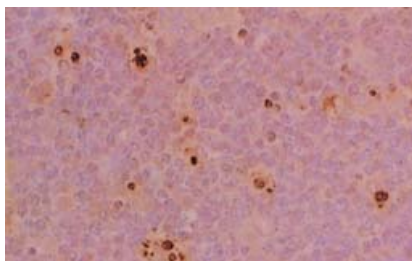
Cultured cell CHO-K1: after Apoptosis induction (CPZ treatment) (× 400)
Nuclei: Methyl Green Staining



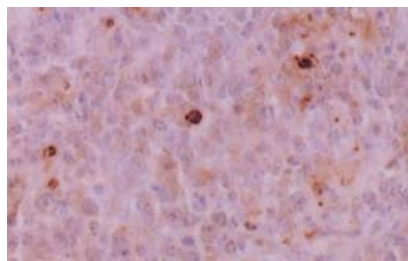
Rat small intestine (× 400)
Nuclei: Methyl Green Staining



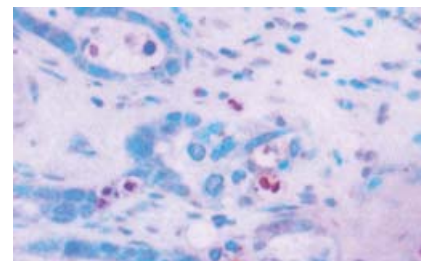
Rat testicle: DAB Intensifying Staining (× 200)



Human T cell lymphoma: HE Staining (× 200)



Human B cell lymphoma: HE Staining (× 200)



Human gastric cancer (× 200)
Nuclei: Methyl Green Staining

| Description | Catalog No. | Package Size |
|----------------------------------------------------|-------------|--------------|
| Apoptosis <i>in situ</i> Detection Kit wako | 298-60201 | 40 tests |

Related Products

| Description | Catalog No. | Package Size |
|-------------------------------------------------------------------|-------------|--------------|
| Apoptosis Ladder Detection Kit wako | 291-53204 | for 24 lanes |
| | 297-53201 | for 96 lanes |
| Annexin V-Fluorescein Staining Kit | 297-55901 | 50 tests |
| Lemosol ® <limonene-based solvent as a xylene substitute> | 122-03991 | 1 L |
| Lemosol ® A <terpene-based solvent as a xylene substitute> | 120-04411 | 1 L |
| Softmount <a mounting reagent containing Lemosol® A> | 199-11311 | 250 mL |
| 1 × PBS (-) Powder (0.01 mol/L, pH 7.2~7.4) | 162-19321 | for 1 L × 20 |
| Methyl Green Solution | 138-12701 | 100 mL |

Alkaline Phosphatase activity assay

LabAssay™ ALP

Alkaline Phosphatase (ALP) is distributed in a variety of tissues such as liver, bone, and small intestine in animals. The change of the enzyme activity in tissues is an important hallmark for physiological phenomena as osteogenesis and so on. This kit is for Alkaline Phosphatase assay in a simultaneous multi-sample assay format with a microplate using *p*-Nitrophenylphosphate as a substrate.



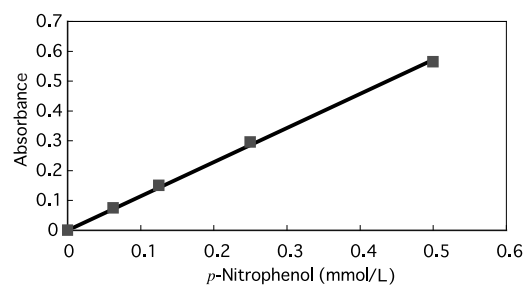
[Kit Contents]

| | |
|--------------------------------------------------------------------------|-------------------|
| Substrate Tablet | 20 tablets |
| <i>(p</i> -Nitrophenylphosphate Disodium 6.7 mmol/L, after dissolving) | |
| Buffer Solution | 100 mL |
| <i>(2.0 mmol/L MgCl₂, 0.1 mol/L Carbonate Buffer, pH 9.8)</i> | |
| Stop Solution | 100 mL |
| <i>(0.2 mol/L Sodium Hydroxide Solution)</i> | |
| Standard Solution | 10 mL |
| <i>(0.5 mmol/L p</i> -Nitrophenol Solution) | |

[Features]

1. Dynamic assay range : > 0.06 mmol/L
2. Standard assay range : 0 ~ 0.5 mmol/L
3. Reproducibility : C.V. < 10 %

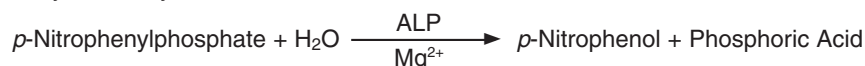
[Standard curve]



By the microplate reader :SAFIRE (TECAN Austria GmbH)

[Assay principle]

p-Nitrophenylphosphate is hydrolyzed into *p*-Nitrophenol and Phosphoric Acid in the carbonate buffer (pH 9.8) in the presence of Alkaline Phosphatase in sample. Released *p*-Nitrophenol showing yellow color is optically measured at 405nm wavelength as the enzyme activity.



[Reference] Yamamoto, M., Takahashi, Y., Tabata, Y. : *Biomaterials*. **24**(25), 4375 (2003).

| Description | Grade | Catalog No. | Package Size |
|---------------|------------------|-------------|--------------|
| LabAssay™ ALP | for cell biology | 291-58601 | 900 tests |

Related Products

| Description | Grade | Catalog No. | Package Size | |
|----------------------------------------------------------------------|---------------------------|-------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <Cytokines for research of bone metabolism> | | | | |
| Bone Morphogenetic Protein 2, Human, recombinant [BMP-2] | for Biochemistry | 026-14811 | 5 µg | BMP family, plays an important role in osteoblast differentiation and bone formation. |
| Bone Morphogenetic Protein 4, Human, recombinant [BMP-4] | for Biochemistry | 023-14821 | 5 µg | |
| Bone Morphogenetic Protein 14, Human, recombinant [BMP-14] | for Cell Biology | 023-14941 | 10 µg | |
| Growth Differentiation Factor 11, Human, recombinant [GDF-11/BMP-11] | for Cell Biology | 073-04931 | 20 µg | |
| Colony Stimulating Factor, Macrophage, Mouse, recombinant [M-CSF] | for Cell Biology | 131-14393 | 1 mg | M-CSF is critical for development of osteoclasts. |
| | | 135-14391 | 10 µg | |
| | | 137-13614 | 1 mg | |
| | | 133-13611 | 10 µg | |
| 139-13613 | 50 µg | | | |
| Parathyroid Hormone Related Protein, Human, recombinant [PTHrP] | for Cell Biology | 165-21141 | 50 µg | PTHrP is a key factor regulating the pace of endochondral ossification during skeletal development. |
| RANK Ligand Soluble, Mouse, recombinant [RANKL] | for Biochemistry | 184-01791 | 10 µg | RANKL is critical for osteoclast-induced osteolysis. |
| | | 188-01473 | 1 mg | |
| | | 182-01471 | 10 µg | |
| | | 186-01474 | 50 µg | |
| RANK Receptor Soluble, Human, recombinant | for Biochemistry | 184-01671 | 100 µg | Playing central roles in osteoclast differentiation and function. |
| <Their antibodies> | | | | |
| Anti Human RANK Receptor Soluble, Rabbit | for Immunochemistry | 013-18921 | 50 µg | Antibodies for osteoporosis research |
| Anti Human RANK Ligand Soluble, Rabbit | | 017-18441 | 500 µg | |
| <Others> | | | | |
| Deoxyypyridinoline Soln (1µg/mL, 0.01mol/L HCl Soln) | for Biochemistry | 044-26661 | 1 µg | Standard at HPLC for osteoporosis research |
| Disodium Etidronate [Etidronic acid] | for Pharmacology Research | 054-07183 | 1 g | Disodium Etidronate is a potent inhibitor of osteoclastic bone resorption. |
| | | 052-07184 | 5 g | |
| | | 058-07181 | 200 mg | |
| Ipriflavone | for Biochemistry | 093-04911 | 500 mg | Ipriflavone inhibits osteoclastic bone resorption. |
| Norzoanthamine Hydrochloride | for Biochemistry | 145-07481 | 1 mg | Osteoclastic inhibitor |
| Osteostatin [(PTHrP107-139)] | for Biochemistry | 159-02321 | 5 mg | Osteostatin is a separate circulating domain responsible for a range of activities related to the modulation of bone formation as well as keratinocyte proliferation. |
| | | 155-02323 | 25 mg | |
| Osteoprotegerin(22-202), Human, recombinant | for Biochemistry | 157-02121 | 25 µg | for osteoporosis research |

DNA Extraction from Serum and Plasma

DNA Extractor® SP Kit

Wako Cat. #296-60501 50 tests

DNA Extractor SP Kit efficiently extracts DNA fragments contained in serum and plasma.

Based on the Sodium Iodide (NaI) method¹⁾, this kit enables the whole procedures done in a single microcentrifuge tube without using hazardous phenol/chloroform.

Recently, tumor-specific genes have been amplified and detected in the serum and plasma of patients with various diseases such as lung, breast and colon cancer. Many of these reference articles are currently being published.^{2,3,4)}

The kit is a powerful pretreatment reagent for the detection and analysis of target DNA because of its high quality and yield.



[Features]

1. High DNA yield (about 100 %) from small amount of serum and plasma
2. Safe operation: No phenol or chloroform required.
3. Minimum contamination: The entire extraction of DNA can be done in a single centrifuge tube.
4. Complete removal of lipid derived from blood
5. Less variability in extraction from sample to sample

[Kit Contents]

- | | |
|-------------------------------|-----------------|
| 1. Enzyme Reaction Solution | 1 vial × 10 mL |
| 2. Protein Digestion Solution | 1 vial × 250 μL |
| 3. Sodium Iodide Solution | 1 vial × 15 mL |
| 4. Alcohol Solution | 1 vial × 30 mL |
| 5. Washing Solution (A) | 1 vial × 50 mL |
| 6. Washing Solution (B) | 1 vial × 50 mL |

[Application Data] Result of amplification of p53-Exon 5 region extracted from human serum and plasma

By using DNA Extractor SP Kit, DNA was extracted from 10 human serum and one plasma samples. The extracted DNA was finally resolved in 20 μL of TE (pH 8.0), and 5 μL of that was subject to amplification of p53-Exon 5 (308 bp). A commercially available kit based on a glass binding method (spin column method) was used as a comparative method.



Standard protocol

100 μL sample of serum or plasma

- + 200 μL of Enzyme Reaction Solution and mix briefly.
 - + 5 μL of Protein Digestion Solution and vortex. Incubate at 56°C for 10 min.
 - + 300 μL of Sodium Iodide Solution and mix briefly.
 - + 600 μL of alcohol solution and vortex. Incubate at room temperature for 10 min.
- Centrifuge at 12,000~20,000 × g for 10 min, at room temperature.

Pellet

- + 1 mL of Washing Solution (A) to the pellet and vortex.
- Centrifuge at 12,000~20,000 × g for 5 min, at room temperature.

Pellet

- + 1 mL of Washing Solution (B) to the pellet and vortex.
- Centrifuge at 12,000~20,000 × g for 5 min, at room temperature.

Pellet

- Dry the pellet well for about 5 min, at about 65°C.
 - + Adequate volume (10~20 μL) of TE (pH 8.0) or D.W. and vortex.
- Dissolve the pellet completely with vortex mixer and incubate at about 65°C for 3~5 min.

DNA solution

[References]

- 1) Ishizawa, M., Kobayashi, Y., Miyamura, T. and Matsuura, S.: *Nucleic Acids Res.*, **22**, 1774 (1994).
- 2) Sozzi, G., Musso, K., Ratcliffe, C., Goldstraw, P., Pierotti, M.A. and Pastorino, U.: *Clin. Cancer Res.*, **5**, 2689 (1999).
- 3) Silva, J. M., Dominguez, G., Garcia, J.M., Gonzalez, R., Villanueva, M.J., avarro, F., Proencio, M., San, Martin, S., Espana, P. and Bonilla, F.: *Cancer Res.*, **59**, 3251 (1999).
- 4) Shao, Z.M., Wu, J., Shen, Z.Z. and Nguyen, M.: *Clin. Cancer Res.*, **7**, 2222 (2001).

| Description | Applicable Sample | Grade | Wako Catalog No. | Package Size |
|-----------------------|-------------------|----------------------|------------------|--------------|
| DNA Extractor SP® Kit | Plasma, Serum | for Genetic Research | 296-60501 | 50 tests |

Related Products

| Description | Applicable Sample | Grade | Wako Catalog No. | Package Size |
|-------------------------------|-----------------------------------------------------------|--------------------------------|------------------|--------------|
| DNA Extractor® Kit | Serum, biopharmaceuticals | for Genetic Research | 295-50201 | 50 tests |
| DNA Extractor® WB Kit | Whole blood, cell culture, tissue | for Whole Blood DNA Extraction | 291-50502 | 50 tests |
| DNA Extractor® WB-Rapid Kit | | | 297-54801 | 20 tests |
| | | | 293-54803 | 200 tests |
| DNA Isolator PS Kit | pathological paraffin-embedded tissue sections, specimens | for Genetic Research | 295-52401 | 100 tests |
| DNA Isolator PS-Rapid Reagent | | for Genetic Research | 291-56401 | 100 tests |
| DNA Extractor® FM Kit | Hair, bloodstain | for Medicolegal Investigation | 295-58501 | 50 tests |
| p53 Primer Exon 5 | Human | - | 312-03511 | 100 tests |
| p53 Primer Exon 7 | Human | - | 316-03531 | 100 tests |
| mt DNA Extractor® WB Kit | Human whole blood | for mtDNA Extraction | 293-54401 | 25 tests |
| mt DNA Extractor® CT Kit | Cell Culture, tissue | for mtDNA Extraction | 291-55301 | 25 tests |

7. RNase Inactivation Reagent

Irreversible RNase Inactivation Reagent

RNA stabilizer

for Genetic Research

Wako Cat. #180-01891 50 tests (3.5 mL dissolved in methanol solution)

Keep at -20°C

RNA stabilizer is used when RNA is purified from various organs and for improving the stability of obtained RNA. RNA stabilizer is particularly useful for the purification of high quality RNA from the pancreas or liver. When RNA stabilizer is applied to an existing RNA purification kit, which utilizes a carrier such as silica for adsorption and filtration of nucleic acid, it irreversibly inactivates the RNase derived from samples. High quality RNA with excellent stability can be obtained.

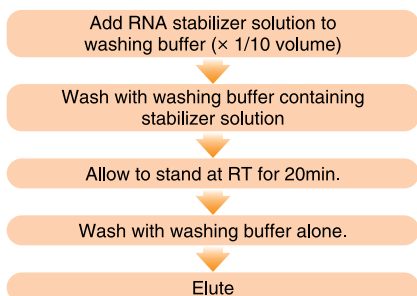


[Features]

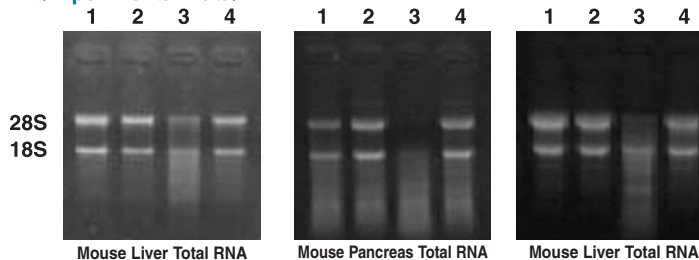
1. Since RNase is inactivated irreversibly, valuable samples can be kept long term.
2. Since reactivation of inactivated RNase is inhibited by reducing agents such as mercaptoethanol, the RNase inactivation is irreversible.
3. RNA with high stability can be purified from the RNase rich organs such as liver, pancreas and kidney.
4. High quality RNA can be obtained with no effect on recovery by application to an existing RNA purification kit, which utilizes a carrier such as silica for adsorption and filtration of nucleic acids.

<Procedure>

RNA stabilizer is applied to the washing step of an RNA purification kit, which utilizes a carrier such as silica for adsorption and filtration of nucleic acids. As for RNA adsorption to the carrier, please consult the manufacturer's instructions of each purification kit.



<Experimental Data>



Lane 1: without RNA stabilizer (allow to stand at -80°C overnight); **Lane 2:** with RNA stabilizer (allow to stand at -80°C overnight); **Lane 3:** without RNA stabilizer (incubate at 37°C overnight); **Lane 4:** with RNA stabilizer (incubate at 37°C overnight)

ALPHABETICAL INDEX

| | page | Description | | page | Description | | page | Description | | |
|---|-----------------------------------------------|-----------------------------------------------|---|-------------------------------------------------|----------------------------------------------------|------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------|-----------------------------------------|
| A | 2 | Amyloid β -Protein (1-40), & (1-42) | D | 6 | Deoxy pyridinoline Solution | M | 5 | Methyl Green Solution | | |
| | 2 | Amyloid β -Protein Immunohistostain Kit | | 6 | Disodium Etidronate | | 7 | mt DNA Extractor [®] CT Kit, & the WB Kit | | |
| | 5 | Annexin V-Fluorescein Staining Kit | | 7 | DNA Extractor SP [®] Kit | | N | 6 | Norzoanthamine Hydrochloride | |
| | 6 | Anti Human RANK Receptor Soluble, Rabbit | | 7 | DNA Extractor [®] FM Kit | | | O | 6 | Osteoprotegerin (22-202) |
| | 2, 3 | Anti Phosphorylated α -Synuclein, MAb | | 7 | DNA Extractor [®] Kit | | 6 | | Osteostatin | |
| | 5 | Apoptosis in situ Detection Kit wako | | 7 | DNA Extractor [®] WB Kit, & the Rapid Kit | | P | 2, 3 | Anti Phosphorylated α -Synuclein, MAb | |
| | 5 | Apoptosis Ladder Detection Kit wako | | 7 | DNA Isolator PS Kit, & the Rapid Reagent | | | 7 | p53 Primer Exon 5, and 7 | |
| | B | 2 | | Human β Amyloid (1-40) ELISA Kit Wako | 7 | | mt DNA Extractor [®] CT Kit, & the WB Kit | 6 | Parathyroid Hormone Related Protein | |
| | | 2 | | Human β Amyloid (1-42) ELISA Kit Wako | E | | 6 | Etidronic acid | 5 | PBS (-), Powder |
| | | 2 | | Human/Rat β Amyloid (40) ELISA Kit Wako | | | 4 | GDF-11 | 2 | Phosphorylated Tau Immunohistostain Kit |
| 2 | | Human/Rat β Amyloid (42) ELISA Kit Wako | G | 4 | GLP-1 ELISA Kit wako | 6 | PTHrP | | | |
| 6 | | LabAssay [™] ALP | | 4 | Rat GLP-2 ELISA Kit wako | R | 6 | Anti Human RANK Ligand Soluble, Rabbit | | |
| 6 | | BMP-2, BMP-4, BMP-11 and BMP-14 | 4 | Glucagon ELISA Kit wako | 6 | | RANK Ligand Soluble [RANKL] | | | |
| 6 | | Bone Morphogenetic Protein 2, 4, 11 & 14 | 6 | Growth Differentiation Factor 11 | 4 | Rat C-Peptide ELISA Kit Wako | | | | |
| 2 | | Human β Amyloid (1-40) ELISA Kit Wako | I | 6 | Ipriflavone | 4 | Rat GLP-2 ELISA Kit Wako | | | |
| 2 | | Human β Amyloid (1-42) ELISA Kit Wako | | 8 | Irreversible RNA Inactivation Reagent | 4 | Rat Leptin ELISA Kit Wako | | | |
| 2 | | Human/Rat β Amyloid (40) ELISA Kit Wako | L | 6 | LabAssay [™] ALP | 8 | RNA stabilizer | | | |
| 2 | Human/Rat β Amyloid (42) ELISA Kit Wako | 5 | | Lemosol [®] , & Lemosol [®] A | S | 2, 3 | Anti Phosphorylated α -Synuclein, MAb | | | |
| C | 6 | Colony Stimulating Factor, Macrophage | 4 | Rat Leptin ELISA Kit Wako | | 5 | Softmount | | | |
| | 4 | Rat C-Peptide ELISA Kit wako | M | 6 | M-CSF | T | 2 | Phosphorylated Tau Immunohistostain Kit | | |

Ⓡ : shown as a related product

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