

For the quantitative determination of A₄₀、A₄₂

Wako

Amyloid ELISA Kits

For Research Use Only

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 Amyloid peptide (A₄₀ and A₄₂). A₄₂ is more prone to aggregate than A₄₀. Therefore the initial A₄₂ deposition begins with A₄₂ but not with A₄₀. A₄₂-positive and A₄₀-negative plaques may represent early-stage diffuse type SPs, and A₄₀-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 detects A₄₀. Therefore these kits are designed to be used for the quantitative determination of A₄₀ in samples such as tissue culture medium, tissue homogenate, CSF and plasma.

Features

1. These kits are designed to be used for the quantitative determination of A₄₀ in samples such as tissue culture medium, tissue homogenate, CSF and plasma.
2. These kits use the monoclonal antibodies that were developed by Takeda Chemicals Industries, Ltd.

BAN50: Specifically detects the N-terminal of A₄₀

BNT77: Specifically detects the A₄₀ (11-28) of A₄₀

BA27 : Specifically detects the C-terminal of A₄₀

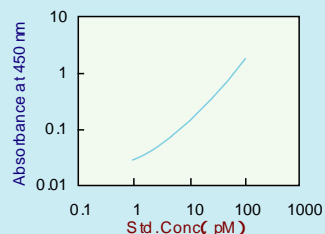
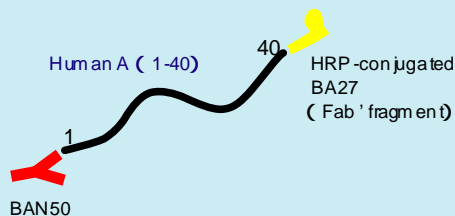
BC05 : Specifically detects the C-terminal of A₄₂



Variation of kit

1. Human Amyloid (1-40) ELISA Kit Wako (Wako Catalog #292-62301, 96 tests)

This kit detects the quantity of Human A (1-40).

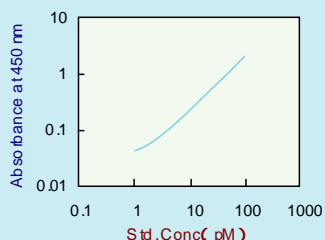
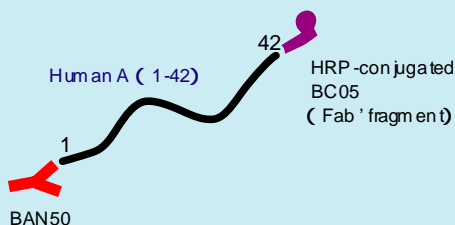


Sensitivity*: 0.12 (pM)

Dynamic range: 1.0-100 (pM)

2. Human Amyloid (1-42) ELISA Kit Wako (Wako Catalog #298-62401, 96 tests)

This kit detects the quantity of Human A (1-42).

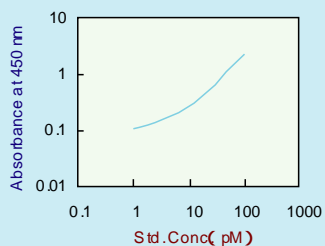
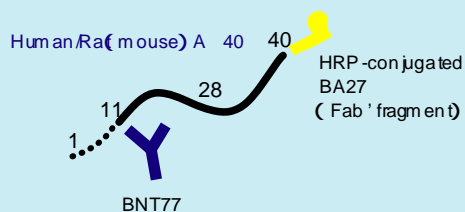


Sensitivity*: 0.08 (pM)

Dynamic range: 1.0-100 (pM)

3. Human/Rat Amyloid (40) ELISA Kit Wako (Wako Catalog #294-62501, 96 tests)

This kit detects the quantity of Human or Rat(mouse) A (x-40) with a truncated or modified N-terminus.

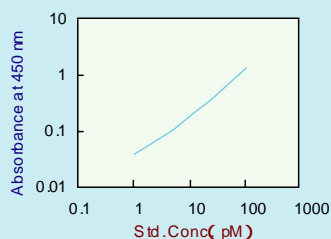
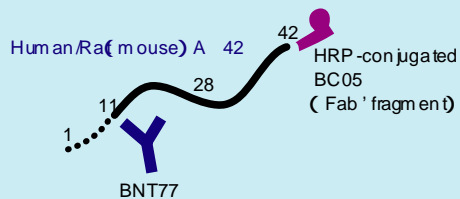


Sensitivity*: 0.25 (pM)

Dynamic range: 1.0-100 (pM)

4. Human/Rat Amyloid (42) ELISA Kit Wako (Wako Catalog #290-62601, 96 tests)

This kit detects the quantity of Human or Rat(mouse) A (x-42) with a truncated or modified N-terminus.



Sensitivity*: 0.19 (pM)

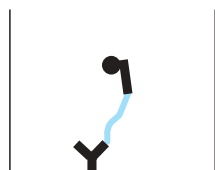
Dynamic range: 1.0-100 (pM)

* : The sensitivity was determined by adding two standard deviations to the mean absorbance obtained when the zero standard was assayed 24 times.

Assay Summary

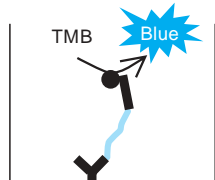


Add 100 μ L of Standards and Samples and incubate in the refrigerator with plate seal overnight.



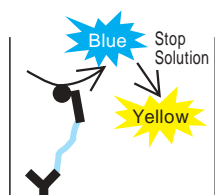
Wash

Add 100 μ L of the HRP-conjugated Antibody Solution, seal plate and refrigerate for 1 hour.

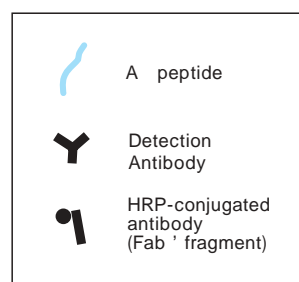


Wash, 5 times

Add 100 μ L of TMB Solution, seal plate and incubate for 30 minutes at room temperature in the dark.



Add 100 μ L the Stop Solution and read the absorbance of each well at 450 nm with a microplate reader.



Specificity (Cross-reaction)

Kit name \ Antigen	HumanA (1-40)	HumanA (1-42)	HumanA (1-43)	Rat (Mouse) A (1-40)	Rat (Mouse) A (1-42)
HumanA (1-40)	100	0.1	0.1	0.4	0.3
HumanA (1-42)	0.1	100	6.6	0.1	0.3
Human/RatA (40)	100	0.1	0.1	137.0	0.2
Human/RatA (42)	0.1	100	7.2	0.1	132.0

Spike Recovery

	Spike (pM)	Plasma ($\times 4$) (EDTA2K)			Cerebrospinal fluid ($\times 50$)			Culture medium ($\times 4$) (DMEM, 10%FCS)		
		Measured (pM)	Expected (pM)	%	Measured (pM)	Expected (pM)	%	Measured (pM)	Expected (pM)	%
Human A (1-40)	25.00	37.97	36.69	103.5	44.21	43.69	101.2	29.43	27.13	108.5
	12.50	24.77	24.18	102.4	31.54	31.19	101.2	15.74	14.63	107.6
	6.25	17.88	17.94	99.7	25.45	24.81	102.5	9.13	8.38	109.0
Human A (1-42)	25.00	23.46	25.93	90.5	26.04	28.62	91.0	28.25	25.18	108.2
	12.50	11.17	13.43	83.2	14.91	16.12	92.5	12.97	12.68	102.3
	6.25	6.13	7.18	85.4	8.71	9.75	89.3	6.25	6.43	97.3
Human/Rat A (40)	25.00	40.23	38.98	103.2	53.01	51.23	103.5	33.01	28.09	117.5
	12.50	26.74	26.48	101.0	40.10	38.73	103.6	18.03	15.59	115.6
	6.25	20.08	20.23	99.3	33.28	32.35	102.9	10.57	9.34	113.2
Human/Rat A (42)	25.00	24.27	26.19	92.7	31.93	31.26	102.1	30.18	25.28	119.4
	12.50	12.15	13.69	88.8	19.18	18.76	102.2	13.93	12.78	109.0
	6.25	6.77	7.44	91.0	12.24	12.39	98.8	6.98	6.53	106.8

References

- 1) Suzuki, N., Cheung, T.T., Cai, X.D., Odaka, A., Otvos, L. Jr., Eckman, C., Golde, T.E. and Younkin, S.G.: *Science*, 264, 1336 (1994).
- 2) Iwatsubo, T., Odaka, A., Suzuki, N., Mizusawa, N. and Ihara, Y.: *Neuron*, 13, 45 (1994).
- 3) Asami-Odaka, A., Ishibashi, Y., Kikuchi, T., Kitada, C. and Suzuki, N.: *Biochemistry*, 34, 10272 (1995).
- 4) Fukumoto H., Tomita T., Matsunaga H., Ishibashi Y., Saido T.C. and Iwatsubo T.: *Neuroreport*, 10, 2965 (1999).
- 5) Scheuner, D., Eckman, C., Jensen, M., Song, X., Citron, M., Suzuki, N., Bird, T.D., Hardy, J., Hutton, M., Kukull, W., Larson, E., Levy-Lahad, E., Viitanen, M., Peskind, E., Poorkaj, P., Schellenberg, G., Tanzi, R., Wasco, W., Lannfelt, L., Selkoe, D. and Younkin, S.: *Nature Med.*, 2, 864 (1996).
- 6) 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).

Products

Code No.	Description	Explanation	Package Size
292-62301	Human Amyloid (1-40) ELISA Kit Wako	This kit detects the quantity of human A (1-40).	96 tests
298-62401	Human Amyloid (1-42) ELISA Kit Wako	This kit detects the quantity of human A (1-42).	96 tests
294-62501	Human/Rat Amyloid(40) ELISA Kit Wako	This kit detects the quantity of human or rat (mouse) A (x-40) with a truncated or modified N-terminus.	96 tests
290-62601	Human/Rat Amyloid(42) ELISA Kit Wako	This kit detects the quantity of human or rat (mouse) A (x-42) with a truncated or modified N-terminus.	96 tests

These kits are for research use only.

Related product

Code No.	Description	Explanation	Package Size
299-56701	Amyloid β -Protein Immunohistostain Kit	This kit stains A β 40 or A β 42 in tissue section by the monoclonal antibodies that detects the portion of C-terminal of A β .	50 tests
299-57301	Phosphorylated Tau Immunohistostain Kit	This kit stains hyperphosphorylated tau protein in tissue section.	100 tests
014-20281	Anti Phosphorylated τ -Synuclein, Monoclonal Antibody	Specific for human τ -Synuclein including phosphorylated Ser129. (Clone No.:pSyn#64)	50 μ L
019-18761	Amyloid β -Protein (1-40)	Human A β (1-40) Peptide	1 mg
014-18951	Amyloid β -Protein (1-40) (Hydrochloride)	Human A β (1-40) Peptide Hydrochloride	1 mg
016-18771	Amyloid β -Protein (1-42)	Human A β (1-42) Peptide	0.5 mg
011-18961	Amyloid β -Protein (1-42) (Hydrochloride)	Human A β (1-42) Peptide Hydrochloride	1 mg

Please visit our online catalog to search for other products from Wako ; <http://search.wako-chem.com>

Wako Pure Chemical Industries, Ltd.

<http://www.wako-chem.com>
 1-2, Doshomachi 3-Chome
 Chuo-Ku, Osaka 540-8605, Japan
 Tel: 81-6-6203-3741
 Fax: 81-6-6201-5964
 Online Cat.:
<http://search.wako-chem.com>

Wako Chemicals USA, Inc.

<http://www.wakousa.com>
Head Office(Richmond, VA):
 Toll-Free(U.S. only):1-877-714-1920
 Tel: 1-804-714-1920/Fax: 1-804-271-7791
Los Angeles Sales Office(Irvine, CA):
 Tel: 1-949-679-1700/ Fax: 1-949-679-1701
Boston Sales Office(Cambridge, MA):
 Tel: 1-617-354-6772
 Fax: 1-617-354-6774

Wako Chemicals GmbH

<http://www.wako-chemicals.de>
European Office:
 NissanstraBe 2, D-41468
 Neuss, Germany
 Tel: 49-2131-311-0
 Fax: 49-2131-311100