Oligomeric Amyloid-beta ELISA Kit (1 plate)

**Catalogue No.:** BEK-2215-1P

**Description:** The oligomeric form of Amyloid Beta peptide (Aβ, 1-42) has been closely linked to Alzheimer's Disease. Several ELISAs targeting Aβ have been developed; however, these ELISAs are known to cross-react with Amyloid Beta precursor protein (APP) and are poorly characterized against monomeric and oligomeric forms of the peptide. The Biosensis MOAB-2 antibody, developed by LaDu and co-workers (Youmans K. et al., 2012), has been shown to specifically detect Aβ, but not the precursor molecule APP. When utilized in ELISAs, the oligomeric form of Aβ peptide (o-Aβ) can be assayed independently of the other forms of the molecule when assayed with the MOAB-2 monoclonal antibody.

The Biosensis oligomeric Aβ ELISA kit is a sandwich ELISA that allows the preferential quantification of oligomeric Aβ peptides. This kit is exclusive to Biosensis and consists of a pre-coated mouse monoclonal anti-Aβ capture antibody (MOAB-2), a biotinylated MOAB-2 detection antibody and horseradish peroxidase (HRP)-conjugated streptavidin. The addition of a substrate (3,3',5,5'-tetramethylbenzidine, TMB) yields a colored reaction product which is directly proportional to the concentration of o-Aβ present in samples and protein standards. The purpose of this kit is the in vitro qualitative measurement of oligomeric Aβ peptide levels in brain extracts and CSF samples from both transgenic mice and humans relative to a known o-Aβ standard. The inclusion of a highly validated oligomeric standard results in a unique, ready-to-use ELISA kit.

This kit has been configured for research use only and is not to be used in diagnostic or clinical procedures.

**Related products:** Oligomeric Human beta-Amyloid Abeta1-42 Peptide, Stabilized (PE-1750-1000) Beta-Amyloid Abeta1-42 Peptide, HFIP-treated (PE-1749-50)

**Batch No.:** Refer to the product label.

**Antigen:** The standard in this ELISA is preformed oligomeric amyloid beta, manufactured by Biosensis from synthetic, HFIP-treated human beta-amyloid peptide, amino acids 1-42. The stabilized oligomeric beta amyloid 1-42 control complex is also constructed from the same synthetic peptide standard material. No animal systems were used for their manufacture.

**Other Names:** Beta-APP42; Beta-APP40; Beta-amyloid protein 42; Beta-amyloid protein 40; ABPP; APPi; Amyloid beta A4 protein; MOAB2; MOAB-2; Alzheimer's antibody; AB40; AB42; abeta.

**Specificity:** Human. MOAB-2 (mouse IgG2b) is a pan-specific, high-titer antibody to Aβ residues 1-4 and is highly specific just to amyloid beta peptide. The Biosensis o-Aβ Elisa detects Aβ oligomers as validated and described by Youmans KL et al (2012) and Rat by Combes M et al (2015).

**Cross-reactivity:** Rat.

**Storage:** Store at 2-8C

**Expiry Date:** 12 months from purchase.

**Specific References:**

FOR RESEARCH USE ONLY

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Seo, Dong Han, et al. (2015) "Plasma-enabled sustainable elemental lifecycles: honeycomb-derived graphenes for next-generation biosensors and supercapacitors."

General References:
Youmans KL et al. (2012) Mol Neurodegener. 16:7:8

Good pathology summary:

Kit components:
The ELISA kit box contains 1 x 96-well pre-coated strip plate, protein standards, QC sample, detection reagents, wash and sample buffers, substrate buffer and detailed protocols.

Range:
0.031 - 2 ng/mL

Kit protocol:
Please refer to our online product listing for current protocol/MSDS versions.

MSDS:
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This standard curve generated in our laboratories is for demonstration purposes only, but can be used as a guide to expected performance. A standard curve should be generated for each assay.