

Anti-Amyloid beta [scFv59] Bulk Size Ab04214-23.0-BT

Isotype and Format: Rabbit IgG, Lambda

Clone Number: scFv59

Alternative Name(s) of Target: A β ; Abeta; Amyloid-beta precursor protein; APP; ABPP; APPI; Alzheimer disease amyloid A4 protein homolog; Alzheimer disease amyloid protein; Amyloid precursor protein; Amyloid-beta (A4) precursor protein; Amyloid-beta A4 protein; Cerebral vascular amyloid peptide (CVAP); PreA4; Protease nexin-II (PN-II)

UniProt Accession Number of Target Protein: P05067

Published Application(s): in vivo, MTT assay, ThT assay, WB, ELISA, IHC

Published Species Reactivity: Human, Mouse

Immunogen: The original antibody was isolated from a human scFv phage library by screening against Abeta1-42.

Specificity: This antibody is specific for oligomeric as well as fibrillar/aggregated A β .

Application Notes: The scFv version of this antibody demonstrated the highest ELISA titer for A β immunoreactivity against A β 1-42, and its specificity for oligomeric and fibrillar/aggregated A β was demonstrated in a WB. The scFv version of this antibody reacted with amyloid beta deposits in brain sections from a Tg2576 mouse and in skeletal muscle sections from a Tg13592 mouse, as observed via IHC. The scFv version of this antibody was used to inhibit the formation of A β fibril formation *in vitro* as demonstrated in a Thioflavin T assay. This inhibition contributed to the amelioration of A β cytotoxicity as was shown *in vitro* in an MTT assay; cell viability increased from $45.2 \pm 0.78\%$ to $58.8 \pm 5.45\%$ ($P = 0.069$) in the presence of scFv59. Furthermore, Tg2576 mice subjected to scFv59 injection in the hippocampus and cortex had fewer diffuse and fibrillar A β deposits in those areas than Tg2576 mice injected with PBS (Fukuchi et al., 2006; PMID: 16630540). Vascular amyloid was also stained by scFv59 (Fukuchi et al., 2006; PMID: 16766200).

Antibody First Published in: Fukuchi et al. Amelioration of amyloid load by anti-Abeta single-chain antibody in Alzheimer mouse model Biochem Biophys Res Commun. 2006 May 26;344(1):79-86. doi: 10.1016/j.bbrc.2006.03.145 [PMID:16630540](#)

Note on publication: The original publication explores the potential of a human single-chain antibody that specifically targets oligomeric Abeta and amyloid plaques in Alzheimer's disease mouse models.

Product Form

Size:

1 mg Purified antibody in bulk size.

Purification: Protein A affinity purified

Supplied In: PBS only.

Storage Recommendation: Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.