



β -Amyloid 40

Background : β -amyloid(A β) peptides result from the proteolytic cleavage of β -amyloid precursor protein (APP) which is encoded by a gene located on chromosome 21. A β is produced by two proteases (β - and γ -secretase) and has vary forms (39- and 43-mer peptides).

A β 40 and A β 42 peptides are major constituents of the plaques and tangles that occur in Alzheimer's disease(AD). A β 42 plays a critical role in the pathogenesis of AD since its aggregative ability and neurotoxicity are much greater than these of A β 40. A β 42 oligomers initially formed as a seed accelerate the aggregation of A β 40 to form the amyloid plaques that eventually lead to the neurodegeneration (amyloid cascade hypothesis). A β 40 also serves as an antioxidant molecule by quenching metal ions and inhibiting metal-mediated oxygen radical generation.

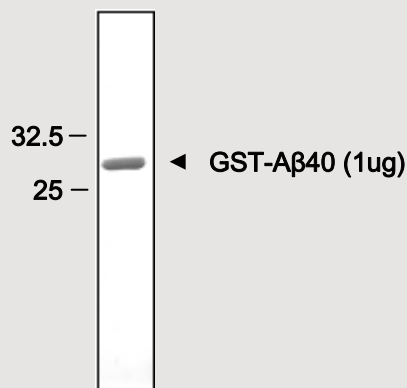
Source : Purified from *E.coli* expressing the GST tagged human β -amyloid 40 gene

Packaging size : 0.5 mg

Molecular Weight : 31 kDa

Concentration : 0.9 mg/ml

Storage : β -amyloid 40 is supplied with a vial of storage buffer (20mM HEPES, pH7.0/10% glycerol). Store at -80°C.



Background Reference :

- (1) Kazuhiro Irie et al. (2005) *Journal of bioscience and bioengineering* **99**(5):437-447
- (2) Andreas Kern et al. (2005) *Journal of Biological Chemistry* published on November 22
- (3) John hardy et al. (2002) *Science* **297**(19):353-356
- (4) Zou K. et al. (2003) *J Neurochem.* **87**(3):609-619

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