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ProductInformation

ANTI-ERAB PROTEIN
Developed in Rabbit,
Affinity Isolated Antibody

Product Number **E 1151**

Product Description

Anti-ERAB (Endoplasmic Reticulum-associated amyloid beta-peptide-binding) Protein is developed in rabbit using a synthetic peptide conjugated to KLH (N-terminal cysteine) as immunogen. This sequence corresponds to amino acids 100-116 (TYNLKKGQTHTLEDFQR) from the human ERAB protein. The antibody is affinity Isolated using protein G.

Anti-ERAB protein detects native human protein at approximately 27 kDa in SDS-PAGE blots using total cell extract from the human SK-N-SH neuroblastoma cell line. It does not detect ERAB protein in mouse or rat brain tissue extract. Anti-ERAB protein can be used in immunoblotting and immunohistochemistry.

Mutations in several genes associated with early onset Alzheimer's result in increased extracellular concentrations of the longer form of the β-amyloid peptide Aβ 1-42 relative to Aβ 1-40.[1-3] It is this longer form of Aβ that has been shown to be toxic to neurons and may serve as a catalyst for the aggregation and deposition of Aβ to produce the neurotoxic effects associated with senile plaque formation. Using the Aβ peptide in a yeast two-hybrid screen, a novel interacting protein designated the endoplasmic reticulum-associated amyloid beta-peptide-binding protein (ERAB)/L-3-hydroxyacyl-CoA dehydrogenase type II has been identified. It is shown to be expressed at high levels in Alzheimer's disease-affected brain.[4,5] ERAB may contribute to neuronal dysfunction in Alzheimer's disease.[4]

Reagents

Anti-ERAB Protein is supplied in 0.05 M sodium phosphate buffer solution containing 0.2% gelatin and 0.1% sodium azide as a preservative.
Antibody concentration is approximately 0.1 mg/ml.

Precautions and Disclaimer

Due to the sodium azide content a material safety sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution.
Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

Store at 2-8 °C. **Do Not Freeze.** If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

The recommended concentrations for immunohistochemistry are 1-2 μg/ml using human cerebellum tissue with DAB detection. Staining was completely abolished by preincubating the affinity purified antibody with control peptide at 10^{-6}M.
The recommended starting concentrations for immunoblotting are 1-3 μg/ml using human neuroblastoma SK-N-SH cells with chemiluminescence detection.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilution by titrate test.

References

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4. Yan, S.D. et al., Nature, **389**, 689 (1997).
5. He, X.Y., et al., J. Biol. Chem., **273**, 10741 (1998).

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