



Biotinylated Anti-human Calsyntenin-1 Antibody

ORDERING INFORMATION

Catalog Number: BAF5346

Lot Number: CCDF01

Size: 50 µg

Formulation: 0.2 µm filtered solution in PBS with BSA

Storage: -20° C

Reconstitution: sterile 0.1% BSA in TBS

Specificity: human Calsyntenin-1 isoform 2 extracellular domain

Immunogen: NS0-derived rhCalsyntenin-1 isoform 2 extracellular domain

Ig Type: sheep IgG

Application: Western blot

Background

Calsyntenin-1 (CST-1; also Alcadin-α) is a 140 - 150 kDa member of the Alcadin family of molecules. It is expressed in the ER/Golgi and on the plasma membranes of almost all neurons. It is a calcium-binding protein that may regulate post-synaptic signaling and APP cleavage and gene activation. Notably, when cleaved in a manner similar to APP, its intracellular fragment antagonizes APP AICD gene activation. Mature human CST-1 is a 953 amino acid (aa) type I transmembrane protein. It contains two cadherin domains (aa 38 - 265) in its extracellular region (aa 29 - 859) and a 101 aa cytoplasmic tail. Extracellular cleavage occurs at Met825 Ala826, generating a soluble 115 kDa ECD. Isoforms involve a 78 aa substitution for aa 917 - 981, plus deletions of aa 72 - 81 and 507 - 525. Over aa 30 - 851, human CST-1 shares 92% aa identity with mouse CST-1.

Preparation

Produced in sheep immunized with purified, NS0-derived, recombinant human Calsyntenin-1 isoform 2 extracellular domain (rhCalsyntenin-1; aa 30 - 851; Accession # AAH33902). Human Calsyntenin-1 specific IgG was purified by human Calsyntenin-1 affinity chromatography and then biotinylated.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) containing 50 µg of bovine serum albumin (BSA) per 1 µg of antibody.

Reconstitution

Reconstitute with sterile Tris-buffered saline pH 7.3 (20 mM Trizma base, 150 mM NaCl) containing 0.1% BSA. If 1 mL of buffer is used, the antibody concentration will be 50 µg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C **in a manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for use as a detection antibody in human Calsyntenin-1 Western blots.

Application

Western blot - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect human Calsyntenin-1. The detection limit for rhCalsyntenin-1 is approximately 5 ng/lane under non-reducing and reducing conditions. In this format, this antibody shows less than 5% cross-reactivity with rhCalsyntenin-2 and rhCalsyntenin-3.

Optimal dilutions should be determined by each laboratory for each application.