

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Calsyntenin-2 in direct ELISAs. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) Calsyntenin-1 and rhCalsyntenin-3 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Calsyntenin-2 Ser21-Thr834 (Val366Ile) Accession # Q9H4D0
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Calsyntenin-2 (CS-2) is a 120-135 kDa member of the Alcadein family of molecules. It is expressed in the ER/Golgi, and the plasma membranes of almost all neurons. It is a calcium-binding protein that interacts with APP and X11L. In this regard, it appears to regulate APP cleavage and gene activation, and likely impacts post-synaptic signaling. Notably, when cleaved in a manner similar to APP, its intracellular fragment antagonizes AICD gene activation. Mature human CS-2 is a 935 amino acid (aa) type I transmembrane protein. It contains two cadherin domains (aa 44-280) in its extracellular region (aa 21-831) and a 103 aa cytoplasmic tail. Proteolytic cleavage by ADAM10 occurs between His803 and Leu804 to generate a 105-110 kDa extracellular fragment. Additional processing of the transmembrane fragment by γ-secretase creates a 3 kDa fragment (aa 804-834) plus a 25 kDa cytoplasmic protein. Potential isoform variants show a premature truncation after Gln608, and the use of an alternative start site at Met409. Over aa 21-834, human CS-2 shares 95% aa identity with mouse CS-2.

PRODUCT SPECIFIC NOTICES

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