

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SHANK2 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 711924
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human SHANK2 Lys849-Thr1029 Accession # Q9UPX8
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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

SHANK2 (SH3 and multiple ANKyrin repeat domain protein 2; also CortBP1 and ProSAP1) is a 180-200 kDa member of the Shank family of proteins. It is expressed in neurons and various epithelial cells, and serves as a multidomain scaffold for cell membrane proteins. For example, in the post-synaptic density of neurons, it provides support for the interaction between glutamate receptors and the actin cytoskeleton. In epithelia, SHANK2 regulates the trafficking and activity of Na/H Exchanger 3. Human SHANK2 is 1470 amino acids (aa) in length. It contains an N-terminal SH3 domain (aa 147-206), a PDZ domain (aa 247-341), a Pro-rich region (aa 509-535), a potential O-linked glycosylation site (aa 948-954) and a C-terminal SAM domain (aa 1407-1470). There are seven potential Ser/Thr phosphorylation sites. Multiple splice forms exist. A 220-240 kDa ankyrin repeat-containing isoform (SHANK2-E) possesses a 391 aa substitution for aa 1-12, and a 165 kDa isoform (potentially known as CortBP1) shows a 28 aa substitution for aa 1-238 coupled with a deletion of aa 383-390. Another potential isoform shows the previously noted 28 aa substitution for aa 1-238 coupled to a 19 aa substitution for aa 472-1470. Over aa 849-1029, human SHANK2 shares 80% aa sequence identity with mouse SHANK2.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.