10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

14-3-3 sigma Antibody

Rabbit mAb
Catalog # AP90856

Product Information

Application	WB, IHC
Primary Accession	P31947
Reactivity	Rat, Human
Clonality	Monoclonal
Other Names	14 3 3 protein; Epithelial cell marker protein 1; HME 1; Mkrn3; Mme1; SFN protein; Stratifin; YWHAS;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	27774

Additional Information

Dilution	WB 1:1000~1:2000 IHC 1:50~1:200
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human 14-3-3 sigma
Description	Adapter protein implicated in the regulation of a large spectrum of both general and specialized signaling pathways. Binds to a large number of partners, usually by recognition of a phosphoserine or phosphothreonine motif. Binding generally results in the modulation of the activity of the binding partner. When bound to KRT17, regulates protein synthesis and epithelial cell growth by stimulating Akt/mTOR pathway.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	SFN (HGNC:10773)
Function	Adapter protein implicated in the regulation of a large spectrum of both general and specialized signaling pathways (PubMed:15731107, PubMed:22634725, PubMed:28202711, PubMed:37797010). Binds to a large number of partners, usually by recognition of a phosphoserine or phosphothreonine motif (PubMed:15731107, PubMed:22634725, PubMed:28202711, PubMed:37797010). Binding generally results in the modulation of the activity of the binding partner (PubMed:15731107, PubMed:22634725, PubMed:28202711, PubMed:37797010). Promotes cytosolic retention of GBP1 GTPase by binding to phosphorylated GBP1, thereby inhibiting the innate immune response (PubMed:37797010). Also acts as a TP53/p53-regulated inhibitor of G2/M progression (PubMed:9659898). When bound to KRT17, regulates protein synthesis and epithelial cell growth

by stimulating Akt/mTOR pathway (By similarity). Acts to maintain desmosome cell junction adhesion in epithelial cells via interacting with and sequestering PKP3 to the cytoplasm, thereby restricting its translocation to existing desmosome structures and therefore maintaining desmosome protein homeostasis (PubMed:24124604). Also acts to facilitate PKP3 exchange at desmosome plaques, thereby maintaining keratinocyte intercellular adhesion (PubMed:29678907). May also regulate MDM2 autoubiquitination and degradation and thereby activate p53/TP53 (PubMed:18382127). Upstream regulator of YAP1 localization in keratinocytes: binds and sequester YAP1 in the cytoplasm, limiting YAP1-dependent transcription and driving Hippo signaling and cell differentiation (By similarity).

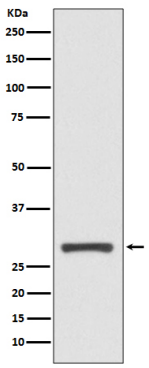
Cellular Location

Cytoplasm. Nucleus. Secreted Note=May be secreted by a non-classical secretory pathway

Tissue Location

Present mainly in tissues enriched in stratified squamous keratinizing epithelium.

Images



Western blot analysis of 14-3-3 sigma expression in A431 cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.