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

Anti-14-3-3 Sigma Antibody

Catalog # ABO11106

Product Information

Application	WB, IHC-P, ICC
Primary Accession	P31947
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for 14-3-3 protein sigma(SFN) detection. Tested with WB, IHC-P, ICC in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2810
Other Names	14-3-3 protein sigma, Epithelial cell marker protein 1, Stratifin, SFN, HME1
Calculated MW	27774
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Immunocytochemistry , 0.5-1 □g/ml, Human, Mouse, Rat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Cytoplasm. Nucleus . Secreted. May be secreted by a non-classical secretory pathway.
Tissue Specificity	Present mainly in tissues enriched in stratified squamous keratinizing epithelium.
Source	Eukaryota
Protein Name	14-3-3 protein sigma
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human 14-3-3 sigma(140-156aa KKRIIDSARSAYQEAMD), identical to the related rat and mouse sequences.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

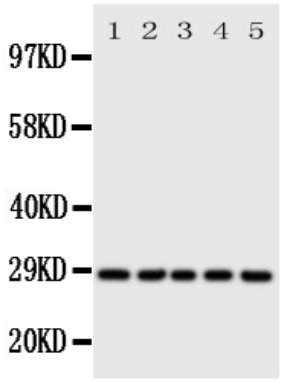
Name	SFN
Synonyms	HME1 {ECO:0000303|PubMed:1390337}
Function	Adapter protein implicated in the regulation of a large spectrum of both general and specialized signaling pathways (PubMed:15731107, PubMed:22634725, PubMed:28202711, PubMed:37797010). Binds to a large number of partners, usually by recognition 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).
Cellular Location	Cytoplasm. Nucleus {ECO:0000250|UniProtKB:O70456} Secreted. Note=May be secreted by a non- classical secretory pathway.
Tissue Location	Present mainly in tissues enriched in stratified squamous keratinizing epithelium.

Background

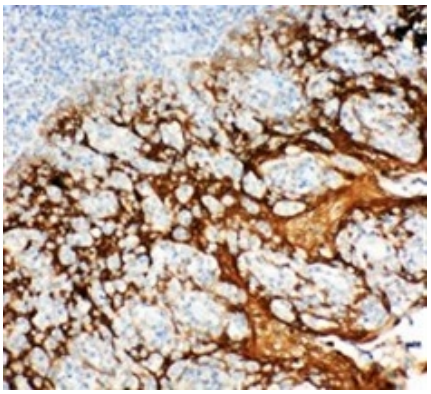
Stratifin(SFN), also known as 14-3-3 protein sigma, is strongly induced by gamma irradiation and other DNA-damaging agents. The induction of 14-3-3-sigma is mediated by a p53 -responsive element located 1.8 kb upstream of its transcription start site. Leffers et al.(1993)obtained peptide sequence and subsequently cloned a T-cell cDNA of the 14-3-3 family of conserved proteins. The protein, called stratifin, was shown to be diffusely distributed in the cytoplasm and was present in cultured epithelial cells. It was most abundant in tissues enriched in stratified keratinizing epithelium.

Images

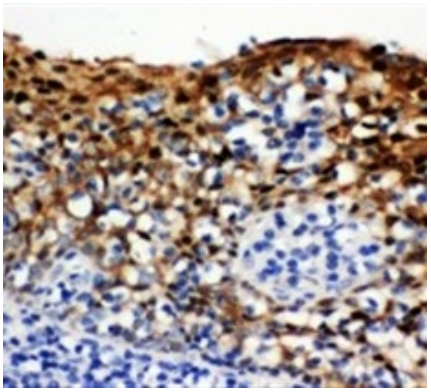
Anti-14-3-3 sigma antibody, ABO11106, Western blottingAll lanes: Anti 14-3-3 sigma (ABO11106) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: A549 Whole Cell Lysate at 40ugLane 3: A549 Whole Cell Lysate at 40ugLane 4: COLO320 Whole Cell Lysate at



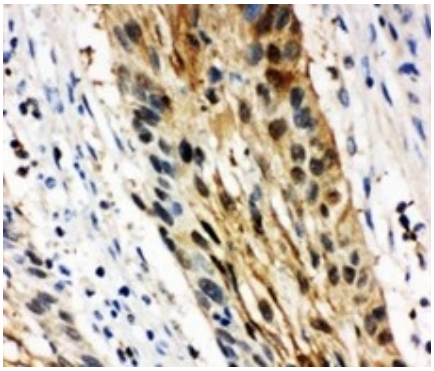
40ugLane 5: SE620 Whole Cell Lysate at 40ugPredicted bind size: 28KDObserved bind size: 28KD



Anti-14-3-3 sigma antibody, ABO11106, IHC(P)IHC(P): Human Tonsil Tissue



Anti-14-3-3 sigma antibody, ABO11106, IHC(P)IHC(P): Human Tonsil Tissue



Anti-14-3-3 sigma antibody, ABO11106, IHC(P)IHC(P): Human Oesophagus Squama Cancer Tissue