

**Anti-14-3-3 Sigma Antibody**  
**Catalog # ABO11106****Specification**

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**Anti-14-3-3 Sigma Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P31947</a>
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.

**Anti-14-3-3 Sigma Antibody - Additional Information**

**Gene ID** 2810

**Other Names**

14-3-3 protein sigma, Epithelial cell marker protein 1, Stratifin, SFN, HME1

**Calculated MW**

27774 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat<br> <br>Immunocytochemistry , 0.5-1 µg/ml, Human, Mouse, Rat<br>Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat<br>

**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.

**Protein Name**

14-3-3 protein sigma

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**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.**

**Anti-14-3-3 Sigma Antibody - 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:<a href="http://www.uniprot.org/citations/15731107" target="\_blank">15731107</a>, PubMed:<a href="http://www.uniprot.org/citations/22634725" target="\_blank">22634725</a>, PubMed:<a href="http://www.uniprot.org/citations/28202711" target="\_blank">28202711</a>, PubMed:<a href="http://www.uniprot.org/citations/37797010" target="\_blank">37797010</a>). Binds to a large number of partners, usually by recognition of a phosphoserine or phosphothreonine motif (PubMed:<a href="http://www.uniprot.org/citations/15731107" target="\_blank">15731107</a>, PubMed:<a href="http://www.uniprot.org/citations/22634725" target="\_blank">22634725</a>, PubMed:<a href="http://www.uniprot.org/citations/28202711" target="\_blank">28202711</a>, PubMed:<a href="http://www.uniprot.org/citations/37797010" target="\_blank">37797010</a>). Binding generally results in the modulation of the activity of the binding partner (PubMed:<a href="http://www.uniprot.org/citations/15731107" target="\_blank">15731107</a>, PubMed:<a href="http://www.uniprot.org/citations/22634725" target="\_blank">22634725</a>, PubMed:<a href="http://www.uniprot.org/citations/28202711" target="\_blank">28202711</a>, PubMed:<a href="http://www.uniprot.org/citations/37797010" target="\_blank">37797010</a>). Promotes cytosolic retention of GBP1 GTPase by binding to phosphorylated GBP1, thereby inhibiting the innate immune response (PubMed:<a href="http://www.uniprot.org/citations/37797010" target="\_blank">37797010</a>). Also acts as a TP53/p53-regulated inhibitor of G2/M progression (PubMed:<a href="http://www.uniprot.org/citations/9659898" target="\_blank">9659898</a>). 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:<a href="http://www.uniprot.org/citations/24124604" target="\_blank">24124604</a>). Also acts to facilitate PKP3 exchange at desmosome plaques, thereby maintaining keratinocyte intercellular adhesion (PubMed:<a href="http://www.uniprot.org/citations/29678907" target="\_blank">29678907</a>). May also regulate MDM2 autoubiquitination and degradation and thereby activate p53/TP53 (PubMed:<a href="http://www.uniprot.org/citations/18382127" target="\_blank">18382127</a>).

**Cellular Location**

Cytoplasm. Nucleus {ECO:0000250|UniProtKB:O70456} Secreted. Note=May be secreted by a non- classical secretory pathway.

**Tissue Location**

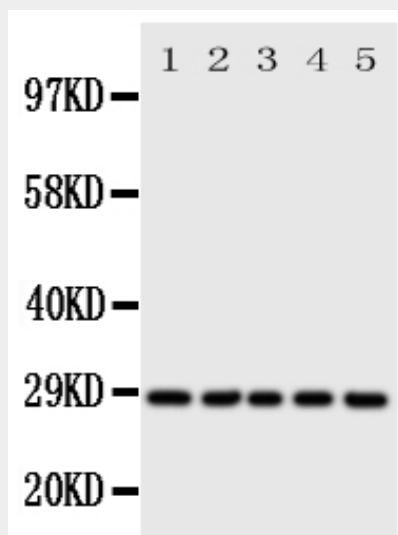
Present mainly in tissues enriched in stratified squamous keratinizing epithelium.

## Anti-14-3-3 Sigma Antibody - Protocols

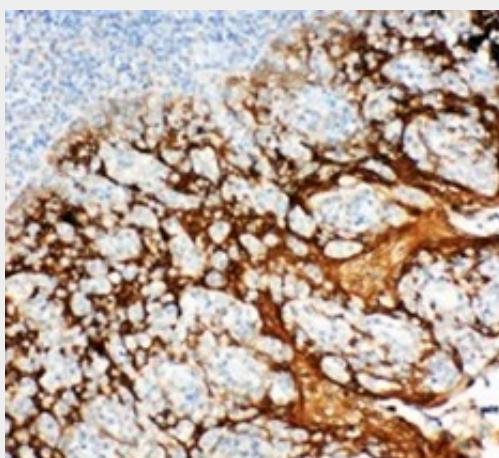
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

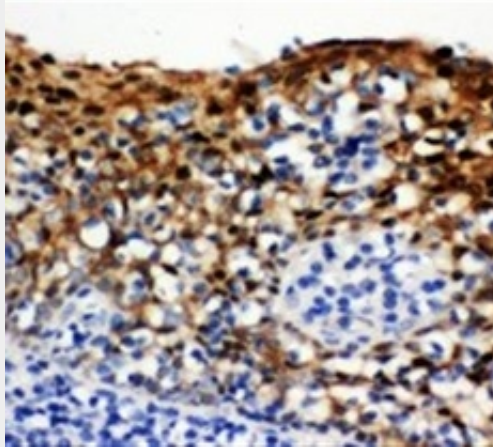
## Anti-14-3-3 Sigma Antibody - Images



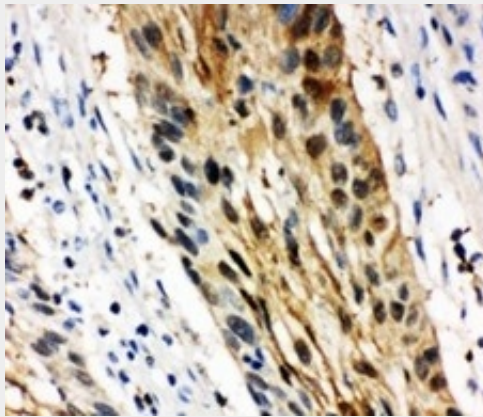
Anti-14-3-3 sigma antibody, ABO11106, Western blotting All lanes: Anti 14-3-3 sigma (ABO11106) at 0.5ug/ml  
Lane 1: HELA Whole Cell Lysate at 40ug  
Lane 2: A549 Whole Cell Lysate at 40ug  
Lane 3: A549 Whole Cell Lysate at 40ug  
Lane 4: COLO320 Whole Cell Lysate at 40ug  
Lane 5: SE620 Whole Cell Lysate at 40ug  
Predicted bind size: 28KD  
Observed 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

#### **Anti-14-3-3 Sigma Antibody - 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.