

AP05570SU-N**Polyclonal Antibody to 14-3-3 protein sigma / SFN - Serum****Alternate names:**

Epithelial cell marker protein 1, HME1, Stratifin

Quantity:

0.1 ml

Background:

It is a member of the 14-3-3 family which consists of 30 kDa proteins that are involved in multiple protein kinase signalling pathways, regulation of cell cycle progression, cytoskeletal structure, transcription, intracellular trafficking and targeting. Protein interactions with 14-3-3 show distinct preference for its different isoforms and are regulated by phosphorylation of both 14-3-3 and the bound protein.

14-3-3 sigma is expressed mostly in epithelial cells and has been associated with cancers including breast, nasopharyngeal, endometrial adenocarcinoma, prostate, epithelial ovarian, colorectal, adenoid cystic, and papillary. 14-3-3 sigma binds c-fos activating the MAPK pathway. Sequestration of Bax by 14-3-3 sigma inhibits apoptosis whereas sequestration of 14-3-3 sigma by CARP-1 induces it. Mitosis is regulated by 14-3-3 sigma through binding keratin filaments and sequestering cyclin B1 and cdc2. p73-dependent induction of 14-3-3 sigma regulates chemo sensitivity in breast cancers with p53 mutations. In reaction to DNA damage and along with RACK1, 14-3-3 sigma targets, DeltaNp63alpha for proteasome degradation. 14-3-3 also negatively regulates both the glucocorticoid receptor and the activity of PKB/Akt which stabilizes p27 Kip1.

Uniprot ID:[O77642](#)**NCBI:**[NP_001009208.1](#)**GeneID:**[443032](#)**Host / Isotype:**

Rabbit / IgG

Immunogen:

Synthetic peptide corresponding to acetylated N-terminal sequence of sheep 14-3-3 sigma

AA Sequence:

Ac . MERASLIQKAC

Format:**State:** Liquid serum containing 0.09% Sodium Azide (NaN₃)**Applications:**

Western Blot: detects a band of approximately 30kDa in HEK293 cell lysates. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody recognises 14-3-3 sigma in all mammals.

This antibody may not react with recombinant proteins that are not N-acetylated.

Species: Sheep, Human, Bovine, Chicken, Rat, Mouse, Rabbit.

Other species not tested.

Storage:

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

Caution: (A full Health and Safety assessment is available upon request) This product contains Sodium Azide: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

General Readings: 1. Aitken, A. et al. (2006) 14-3-3 proteins: A historic overview. *Seminars in Cancer Biology* 16:162 - 172.