

DATASHEET

14-3-3 σ Mouse Monoclonal Antibody (5D7)

CAT. NO. ARA1457

KEY FEATURES

Target	14-3-3 σ	Source / Host	Mouse
Reactivity	Human	Clonality	Monoclonal
Applications	WB, IP, IF/ICC, IHC, ELISA	Storage	-20°C

BACKGROUND

14-3-3 proteins regulate many cellular processes relevant to cancer biology, notably apoptosis, mitogenic signaling and cell cycle checkpoints. Seven iso - forms, denoted 14-3-3 β , γ , ϵ , ζ , η , θ and σ , comprise this family of signaling intermediates. 14-3-3 σ , also known as SFN, stratifin, HME1 or YWHAS, is a secreted adaptor protein that is involved in regulating both general and specific signaling pathways. Expressed predominantly in stratified squamous keratinizing epithelium, 14-3-3 σ is able to bind and modify the activity of a large number of proteins, such as KRT17 (Keratin 17), through recognition of a phosphothreonine or phosphoserine motif. When bound to KRT17, for example, 14-3-3 σ acts to stimulate the Akt/mTOR signaling pathway by upregulating protein synthesis and cell growth. 14-3-3 σ also functions to positively mediate IGF-I-induced cell cycle progression and can bind to a variety of translation initiation factors, thus controlling mitotic translation. In response to tumor growth, 14-3-3 σ positively regulates the tumor suppressor p53 and increases the rate of p53-regulated inhibition of G₂/M cell cycle progression. Multiple isoforms of 14-3-3 σ exist due to alternative splicing events.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:100-1:1000
IHC	1:50-1:500
IF/ICC	1:50-1:500
ELISA	1:30-1:3000
IP	1-2 μ g/100-500 μ g total protein

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

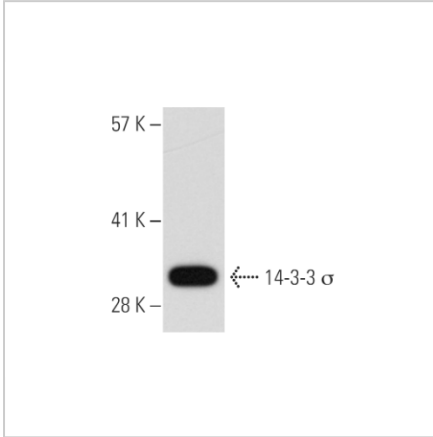
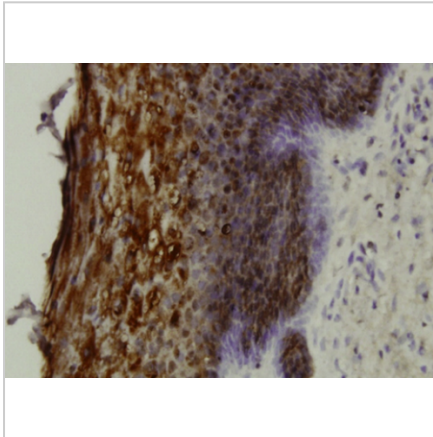
Isotype	Mouse IgG1 kappa light chain
Target Antigen	14-3-3 sigma
Gene Name	SFN
UniProt ID	P31947 (Human), O70456 (Mouse)
Entrez Gene ID	2810 (Human), 55948 (Mouse), 313017 (Rat)
Molecular Weight	30 kDa
Gene Aliases	Stratifin, YWHAS, Epithelial cell marker protein 1, HME1
Immunogen	Recombinant 14-3-3 sigma of human origin (epitope mapping within amino acids 1-249)
Form/Buffer	PBS with < 0.1% sodium azide and 0.1% gelatin

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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DATAWestern blot analysis of 14-3-3 σ expression in HeLa nuclear extract.

Immunoperoxidase staining of formalin - fixed, paraffin - embedded human uterine cervix tissue showing nuclear and cytoplasmic localization.

STORAGE

Store at 4°C, DO NOT FREEZE. Stable for one year from the date of shipment.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.

More information: www.arexbio.com