

14-3-3 protein sigma, *syn. Stratifin*

UniProt

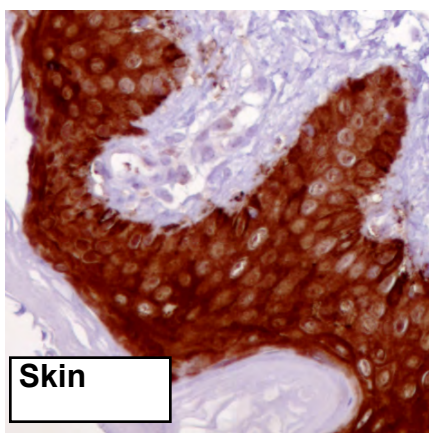
Function: Adapter protein implicated in the regulation of a large spectrum of both general and specialized signaling pathway. Binds to a large number of partners, usually by recognition of a phosphoserine or phosphothreonine motif. Binding generally results in the modulation of the activity of the binding partner. When bound to KRT17, regulates protein synthesis and epithelial cell growth by stimulating Akt/mTOR pathway (By similarity). p53-regulated inhibitor of G2/M progression.

Subcellular location: Cytoplasm. Nucleus (by similarity). Secreted. NOTE: May be secreted by a non-classical secretory pathway.

Tissue specificity: Present mainly in tissues enriched in stratified squamous keratinizing epithelium.

Three antibodies: SFN-1, SFN-2 and SFN-3 were tested. SFN-2 and SFN-3 were approved for IHC. SFN-2 was selected for full protein profiling.

SFN-2 (CAB040552)



Immunohistochemistry

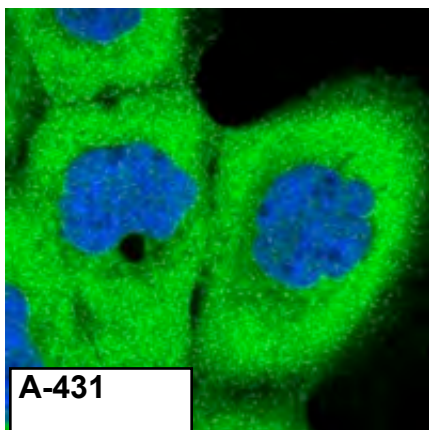
IHC protocol: HIER pH 6, Dilution 1:1000

IHC test staining: Cytoplasmic staining in squamous epithelium.

IHC Annotators comments

Squamous epithelia showed strong cytoplasmic positivity. additional nuclear staining was observed in a few cells. Remaining normal tissues were mainly negative.

Squamous cell carcinomas and a few urothelial cancers showed moderate to strong cytoplasmic and nuclear positivity. Other malignant tissues were negative.



Immunofluorescence

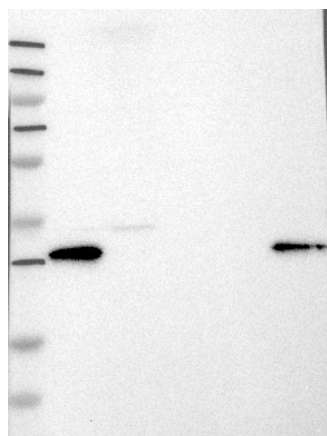
IF Overlay: antibody (green), anti-tubuline (red) and DAPI (blue)

IF Localisation: Staining of cytoplasm in all three cell lines.

Additional staining of plasma membrane in A-431 and U-2 OS.

Additional staining of nucleus in U-251 MG and U-2 OS.

IF Validation: Subcellular localization partly supported by literature or where no literature is available.



Western blot

WB Size markers (kDa): 250, 130, 95, 72, 55, 36, 28, 17, 11

WB Lanes: Marker(1), RT-4(2), U251 MG(3), Plasma(4), Liver(5), Tonsil(6)

WB Target weight (kDa): 28

WB Validation: Supportive - Band of predicted size in kDa (+/-20%) with additional bands present.