

Gamma-synuclein

UniProt

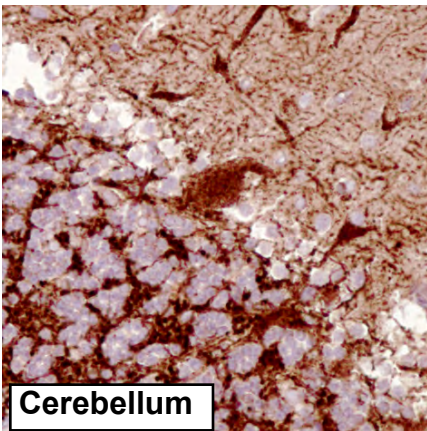
Function: Plays a role in neurofilament network integrity. May be involved in modulating axonal architecture during development and in the adult. In vitro, increases the susceptibility of neurofilament-H to calcium-dependent proteases (By similarity). May also function in modulating the keratin network in skin. Activates the MAPK and Elk-1 signal transduction pathway (By similarity).

Subcellular location: Cytoplasm; Perinuclear region. Cytoplasm; Cytoskeleton; Centrosome. Cytoplasm; Cytoskeleton; Spindle. NOTE: Associated with centrosomes in several interphase cells. In mitotic cells, localized to the poles of the spindle.

Tissue specificity: Highly expressed in brain, particularly in the substantia nigra. Also expressed in the corpus callosum, heart, skeletal muscle, ovary, testis, colon and spleen. Weak expression in pancreas, kidney and lung.

Two antibodies: SNCG-1 and SNCG-2 were tested. Both antibodies were approved for IHC. SNCG-1 was selected for full protein profiling.

SNCG-1 (CAB040581)



Immunohistochemistry

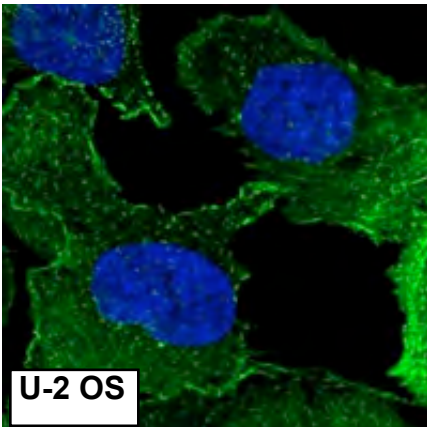
IHC protocol: HIER pH 6, Dilution 1:5000

IHC test staining: Cytoplasmic staining in CNS, vessels and basal cells in male genitalia.

IHC Annotators comments

Adrenal gland, urinary bladder, Purkinje cells and basal cells in male genital tract showed strong cytoplasmic and nuclear positivity. Salivary gland, respiratory epithelial cells and cells of CNS displayed moderate cytoplasmic and nuclear positivity. Neuropil were distinctly stained. Remaining normal tissues were negative.

Most urothelial cancers along with several malignant gliomas, squamous cell carcinomas, basal cell carcinomas, ovarian, breast and endometrial cancers exhibited strong cytoplasmic positivity with additional membranous or nuclear staining in a few cases. Remaining malignancies were in general negative.



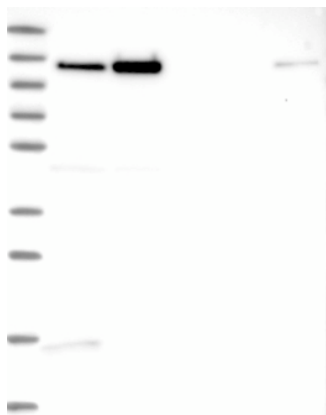
Immunofluorescence

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

IF Localisation: Staining of plasma membrane in U-251 MG and U-2 OS. Additional staining of cytoplasm in A-431.

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): 13, 8

WB Validation: Non-supportive - Weak band of predicted size but with additional bands of higher intensity also present.