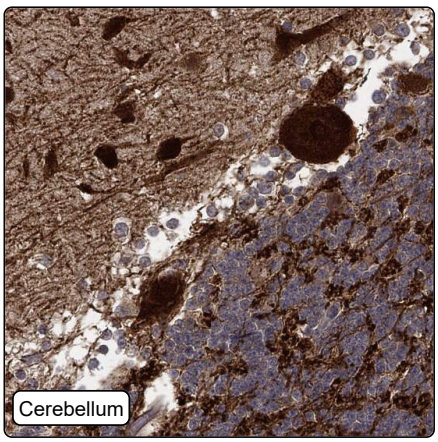
CPTC-SNCG-3 (CAB080022)

Uniprot ID: O76070
Protein name: SYUG_HUMAN
Full name: Gamma-synuclein
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.
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 (*experimental evidence*)
Cytoplasm > Cytoskeleton > Microtubule organizing center > Centrosome (*experimental evidence*)
Cytoplasm > Cytoskeleton > Spindle (*experimental evidence*)
NOTE: Associated with centrosomes in several interphase cells. In mitotic cells, localized to the poles of the spindle.
Protein existence: Experimental evidence at protein level

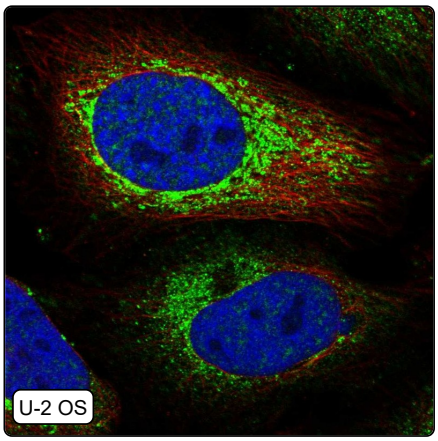
Comment:

Immunohistochemistry



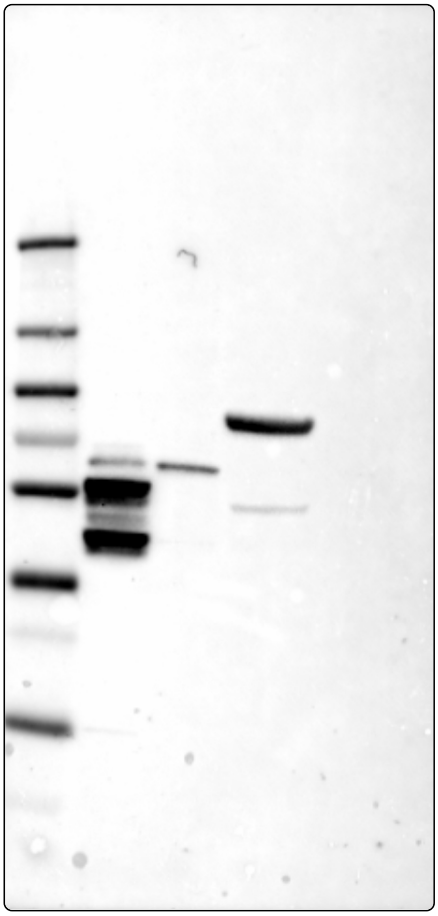
IHC protocol:	HIER pH6, Dilution 1:8000
IHC test staining:	Moderate to strong positivity in neuronal processes. Additional cytoplasmic positivity in several tissues eg, adrenal gland, urinary blader and endothelium.
Literature conformance:	Partly consistent with gene/protein characterization data
Literature significance:	Limited
RNA consistency:	Mainly consistent with RNA expression data
IHC Sibling similarity:	Other antibody shows similar IHC staining pattern

Immunofluorescence



IF Overlay:	antibody (green), anti-tubuline (red) and DAPI (blue)
IF main location:	Mitochondria - 12: **Uncertain** (auto)
IF additional location:	Cytosol - 3: **Supportive** (auto) Nuclear speckles - 12: **Uncertain** (auto)
IF Antibody score:	Failed IF
IF in A549:	Negative
IF in RT4:	Negative
IF in U-2 OS:	Nuc speckles Mitochondria Cytosol

Western blot



WB Size markers (kDa):	250, 130, 100, 70, 55, 35, 25, 15, 10
WB Lanes:	Marker (1), RT4 (2), U-251 MG (3), Plasma (4), Liver (5), Tonsil (6)
WB Target weight (kDa):	13, 13
WB Validation:	Uncertain (Only bands not corresponding to the predicted size.)