



Humanin (C-14): sc-47053

BACKGROUND

Humanin, an endogenous antiapoptotic peptide against Alzheimer's disease-related insults, consists of 24 amino acids. The secreted protein is a neuroprotective factor against death induced by several different types of Alzheimer's disease genes. Humanin protects neuronal cells from damage caused by Alzheimer's disease genes, specifically APP (amyloid precursor protein). Humanin acts as a ligand for formyl peptide receptor-like 1 (FPRL1) with APP and utilizes its neuroprotective effects by inhibiting FPRL1 access to APP. The peptide prevents Bax translocation from cytosol to mitochondria. Humanin expression levels may be dependent on defects in energy production in muscles with mitochondrial abnormalities. The peptide has been detected in muscles of patients with the mitochondrial disease chronic progressive external ophthalmoplegia (CPEO). Humanin is mainly expressed in the kidney, heart, liver, testis and skeletal muscles.

REFERENCES

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3. Ying, G., et al. 2004. Humanin, a newly identified neuroprotective factor, uses the G protein-coupled formylpeptide receptor-like-1 as a functional receptor. *J. Immunol.* 172: 7078-7085.
4. Kariya, S., et al. 2005. Effect of Humanin on decreased ATP levels of human lymphocytes harboring A3243G mutant mitochondrial DNA. *Neuropeptides* 39: 97-101.
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SOURCE

Humanin (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Humanin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47053 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Humanin (C-14) is recommended for detection of Humanin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Humanin: 3 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.