SANTA CRUZ BIOTECHNOLOGY, INC.

XLαs (D-20): sc-18989

BACKGROUND

The GTP-binding proteins are well-known regulators of cellular functions, including vesicular transport. XLαs, for extra large αs, is a paternally expressed, 78 kDa plasma membrane-associated protein consisting of a novel 37 kDa XL domain followed by a 41 kDa αs domain. XLαs is specifi-cally associated with the trans-Golgi network and occurs selectively in cells containing both the regulated and the constitutive pathway of protein secre-tion. Like $G_{\alpha\,s}$, XLαs undergoes a conformational change upon binding of GTPγS. In neuroendocrine cells, the two related G proteins, $G_{\alpha\,s}$ and XLαs, exhibit distinct properties with regard to receptor-mediated activation, but converge onto the same effector system, adenylyl cyclase. XLαs is found in adult neuroendocrine tissue, with a particularly high level of expression in the pituitary. The human Gnas gene maps to chromosome 20q13.2.

REFERENCES

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3. Pasolli, H.A., Klemke, M., Kehlenbach, R.H., Wang, Y., and Huttner, W.B. 2000. Characterization of the extra-large G protein alpha-subunit XLalphas. I. Tissue distribution and subcellular localization. J. Biol. Chem. 275: 33622-33632.

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5. Weinstein, L.S., Yu, S., Warner, D.R., and Liu, J. 2001. Endocrine manifes-tations of stimulatory G protein alpha-subunit mutations and the role of genomic imprinting. Endocr. Rev. 22: 675-705.

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SOURCE

XLαs (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of XLαs 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-18989 P, (100 µg pep-tide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

XLαs (D-20) is recommended for detection of XLαs of mouse, rat and 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); non cross-reactive with $G_{\alpha\,s}$

Molecular Weight of XLαs: 78 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) Immunofluores-cence: 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.