



IFIX (C-12): sc-160441

BACKGROUND

IFIX (interferon-inducible protein X), also known as PYHIN1 (pyrin and HIN domain family, member 1), is a 492 amino acid protein that exists as multiple alternatively spliced isoforms which localize to different regions within the nucleus. Expressed in lymph node, spleen, bone marrow and thymus, IFIX contains one HIN-200 domain and one DAPIN domain, and functions as a major mediator of interferon (IFN) tumor suppressor activity in breast cancer cells. Additionally, IFIX promotes the ubiquitination and subsequent degradation of HDAC1 and MDM2, thereby stabilizing p53 and impairing the invasive activity of cancer cells. The gene encoding IFIX maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

REFERENCES

1. Ding, Y., et al. 2004. Antitumor activity of IFIX, a novel interferon-inducible HIN-200 gene, in breast cancer. *Oncogene* 23: 4556-4566.
2. Ding, Y., et al. 2006. Interferon-inducible protein IFIX α 1 functions as a negative regulator of HDM2. *Mol. Cell. Biol.* 26: 1979-1996.
3. Patel, S. and Player, M.R. 2008. Small-molecule inhibitors of the p53-HDM2 interaction for the treatment of cancer. *Expert Opin. Investig. Drugs* 17: 1865-1882.
4. Choubey, D. and Panchanathan, R. 2008. Interferon-inducible Irf200-family genes in systemic lupus erythematosus. *Immunol. Lett.* 119: 32-41.
5. Yamaguchi, H., et al. 2008. Interferon-inducible protein IFIX α inhibits cell invasion by upregulating the metastasis suppressor maspin. *Mol. Carcinog.* 47: 739-743.

CHROMOSOMAL LOCATION

Genetic locus: PYHIN1 (human) mapping to 1q23.1.

SOURCE

IFIX (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IFIX of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-160441 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

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

APPLICATIONS

IFIX (C-12) is recommended for detection of IFIX isoforms α 1 and α 2 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); non cross-reactive with IFIX isoforms β 1, β 2, γ 1 or γ 2.

Suitable for use as control antibody for IFIX siRNA (h): sc-88428, IFIX shRNA Plasmid (h): sc-88428-SH and IFIX shRNA (h) Lentiviral Particles: sc-88428-V.

Molecular Weight of IFIX: 55 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.

RESEARCH USE

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