SANTA CRUZ BIOTECHNOLOGY, INC.

ILEI (G-14): sc-104324

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ILEI (interleukin-like Emt inducer), also known as FAM3C (family with sequence similarity 3, member C), is a 227 amino acid, ubiquitously expressed protein containing an amino-terminal signal peptide. Elevated levels of ILEI translation are observed in oncogenic, Ras-transformed mammary epithelial cells and epithelial to mesenchymal transition (Emt) as well as tumor growth and metastasis. Also, overexpression of ILEI results in loss of ZO-1, a protein involved in tight junctions, and expression of cytoplasmic E-cadherin, which has been shown to influence loss of polarity and invasiveness. Due to this evidence, it is suspected that ILEI cooperates with oncogenic Ras to cause TGFβ-independent Emt and its overexpression is correlated with the invasion, metastasis and survival in a variety of cancers.

REFERENCES

1. Zhu, Y., et al. 2002. Cloning, expression and initial characterization of a novel cytokine-like gene family. Genomics 80: 144-150.
2. Cao, X., et al. 2003. Pancreatic-derived factor (FAM3B), a novel islet cytokine, induces apoptosis of Insulin-secreting β-cells. Diabetes 52: 2296-2303.
3. Pilipenko, V.V., et al. 2004. Genomic organization and expression analysis of the murine FAM3C gene. Gene 335: 159-168.
4. Mauri, P., et al. 2005. Identification of proteins released by pancreatic cancer cells by multidimensional protein identification technology: a strategy for identification of novel cancer markers. FASEB J. 19: 1125-1127.
5. Waerner, T., et al. 2006. ILEI: a cytokine essential for Emt, tumor formation and late events in metastasis in epithelial cells. Cancer Cell 10: 227-239.
6. Guo, J., et al. 2006. GG: a domain involved in phage LTF apparatus and implicated in human MEB and non-syndromic hearing loss diseases. FEBS Lett. 580: 581-584.
7. Grønborg, M., et al. 2006. Biomarker discovery from pancreatic cancer secretome using a differential proteomic approach. Mol. Cell. Proteomics 5: 157-171.

CHROMOSOMAL LOCATION

Genetic locus: FAM3C (human) mapping to 7q31.31.

SOURCE

ILEI (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ILEI 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-104324 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ILEI (G-14) is recommended for detection of ILEI of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 other FAM family members.

ILEI (G-14) is also recommended for detection of ILEI in additional species, including canine, porcine and avian.

Suitable for use as control antibody for ILEI siRNA (h): sc-89829, ILEI shRNA Plasmid (h): sc-89829-SH and ILEI shRNA (h) Lentiviral Particles: sc-89829-V.

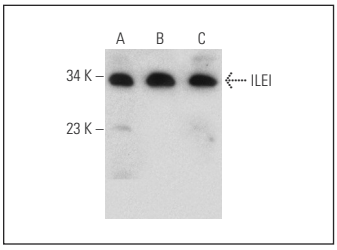
Molecular Weight of ILEI: 25 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, SK-BR-3 cell lysate: sc-2218 or HeLa whole cell lysate: sc-2200.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



ILEI (G-14): sc-104324. Western blot analysis of ILEI expression in COLO 320DM (**A**), SK-BR-3 (**B**) and HeLa (**C**) whole cell lysates.

STORAGE

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