

IGF-II (N-20): sc-1415

BACKGROUND

The insulin gene family, comprises insulin, relaxin, insulin-like growth factors I and II (IGF-I and IGF-II), and represents a group of structurally related polypeptides whose biological functions have diverged. The IGFs, or somatomedins, constitute a class of polypeptides that have a key role in pre-adolescent mammalian growth. IGF-I and II are critical regulators of cell proliferation and differentiation and most of the growth promoting properties of both ligands are mediated by the IGF-I receptor (IGF-IR). IGF-I and II, also known as somatomedin C and somatomedin A, respectively, are single chain polypeptides which share an amino acid sequence homology of about 47% with insulin. IGF-I expression is regulated by growth hormone and mediates postnatal growth, while IGF-II is induced by placental lactogen during prenatal development. IGF-II is a fetal growth factor, influenced by placental lactogen and abundantly expressed by placental trophoblasts. IGF-II and IGF-binding protein 1 (IGFBP1) gene variants are associated with overfeeding-induced metabolic changes. The human IGF-II gene maps to chromosome 11p15.5 and encodes a 180 amino acid protein which is the precursor to IGF-II.

CHROMOSOMAL LOCATION

Genetic locus: IGF2 (human) mapping to 11p15.5; Igf2 (mouse) mapping to 7 F5.

SOURCE

IGF-II (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of IGF-II of human origin.

APPLICATIONS

IGF-II (N-20) is recommended for detection of IGF-II 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). IGF-II (N-20) is also recommended for detection of IGF-II in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for IGF-II siRNA (h): sc-39576, IGF-II siRNA (m): sc-39577, IGF-II shRNA Plasmid (h): sc-39576-SH, IGF-II shRNA Plasmid (m): sc-39577-SH, IGF-II shRNA (h) Lentiviral Particles: sc-39576-V and IGF-II shRNA (m) Lentiviral Particles: sc-39577-V.

Molecular Weight of IGF-II precursor: 23 kDa.

Molecular Weight of mature secreted IGF-II: 8 kDa.

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-1415 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

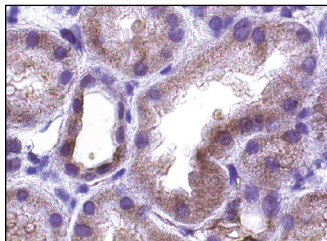
STORAGE

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

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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



IGF-II (N-20): sc-1415. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

SELECT PRODUCT CITATIONS

- Lloyd, R.V., et al. 1999. Neoplasms causing nonhyperinsulinemic hypoglycemia. *Endocr. Pathol.* 10: 291-297.
- Hernandez, M.R., et al. 2002. Differential gene expression in astrocytes from human normal and glaucomatous optic nerve head analyzed by cDNA microarray. *Glia* 38: 45-64.
- Leung, G., et al. 2003. Sex hormone-induced mammary carcinogenesis in female Noble rats: detection of differentially expressed genes. *Breast Cancer Res. Treat.* 77: 49-63.
- Lee, S.D., et al. 2006. Roles of Insulin-like growth factor II in cardiomyoblast apoptosis and in hypertensive rat heart with abdominal aorta ligation. *Am. J. Physiol. Endocrinol. Metab.* 291: E306-E314.
- Declercq, J., et al. 2008. Adenomyoepitheliomatous lesions of the mammary glands in transgenic mice with targeted PLAG1 overexpression. *Int. J. Cancer* 123: 1593-1600.

RESEARCH USE

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

MONOS
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Try **IGF-II (8H1): sc-293176**, our highly recommended monoclonal alternative to IGF-II (N-20).