

INSL4 (G-2): sc-373728

BACKGROUND

Insulin is a secreted peptide hormone that elicits metabolic effects such as increases in glucose uptake and glycogen synthesis leading to a decrease in blood glucose concentration. Insulin is first formed as a precursor molecule, proinsulin, which is later cleaved to proinsulin and finally to the mature Insulin hormone. Insulin-like peptides (INSL proteins), also designated Relaxin-like factors, are members of the Insulin family, which regulate cell growth, metabolism and tissue-specific functions. INSL1-7 are mostly secreted proteins that are expressed mainly in testis, placenta, uterus or prenatal tissues. INSL4 (Insulin-like peptide 4) is a 139 amino acid secreted protein expressed in the placenta, uterus and in fetal perichondrium. It may play an important role in the regulation of bone formation and in trophoblast development.

REFERENCES

1. Chassin, D., et al. 1995. Cloning of a new member of the Insulin gene superfamily (INSL4) expressed in human placenta. *Genomics* 29: 465-470.
2. Bellet, D., et al. 1997. Identification of pro-EPIL and EPIL peptides translated from Insulin-like 4 (INSL4) mRNA in human placenta. *J. Clin. Endocrinol. Metab.* 82: 3169-3172.
3. Laurent, A., et al. 1998. Insulin-like 4 (INSL4) gene expression in human embryonic and trophoblastic tissues. *Mol. Reprod. Dev.* 51: 123-129.
4. Bièche, I., et al. 2003. Placenta-specific INSL4 expression is mediated by a human endogenous element. *Biol. Reprod.* 68: 1422-1429.
5. Faye, A., et al. 2005. Evaluation of the placental environment with a new *in vitro* model of histocultures of early and term placentae: determination of cytokine and chemokine expression profiles. *Placenta* 26: 262-267.
6. Millar, L., et al. 2005. Early placental Insulin-like protein (INSL4 or EPIL) in placental and fetal membrane growth. *Biol. Reprod.* 73: 695-702.
7. Wilkinson, T.N., et al. 2005. Evolution of the relaxin-like peptide family. *BMC Evol. Biol.* 5: 14.

CHROMOSOMAL LOCATION

Genetic locus: INSL4 (human) mapping to 9p24.1.

SOURCE

INSL4 (G-2) is a mouse monoclonal antibody raised against amino acids 1-139 representing full length INSL4 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

INSL4 (G-2) is available conjugated to agarose (sc-373728 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373728 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373728 PE), fluorescein (sc-373728 FITC), Alexa Fluor® 488 (sc-373728 AF488), Alexa Fluor® 546 (sc-373728 AF546), Alexa Fluor® 594 (sc-373728 AF594) or Alexa Fluor® 647 (sc-373728 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373728 AF680) or Alexa Fluor® 790 (sc-373728 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

INSL4 (G-2) is recommended for detection of INSL4 A-chain of human origin by Western Blotting (starting dilution 1:100, 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), 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).

Suitable for use as control antibody for INSL4 siRNA (h): sc-60856, INSL4 shRNA Plasmid (h): sc-60856-SH and INSL4 shRNA (h) Lentiviral Particles: sc-60856-V.

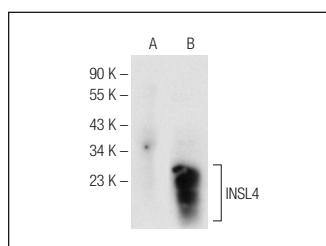
Molecular Weight of INSL4: 17 kDa.

Positive Controls: human INSL4 transfected CMV whole cell lysate.

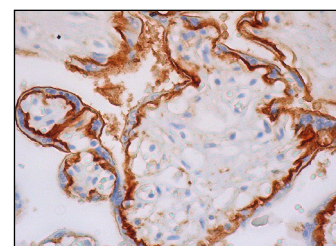
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



INSL4 (G-2): sc-373728. Western blot analysis of INSL4 expression in non-transfected (A) and human INSL4 transfected (B) CMV whole cell lysates.



INSL4 (G-2): sc-373728. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane staining of trophoblastic cells.

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.

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