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CRIPTO (TDGF1) Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP2047b

Specification

CRIPTO (TDGF1) Antibody (C-term) Blocking peptide - Product Information

Primary Accession P13385

CRIPTO (TDGF1) Antibody (C-term) Blocking peptide - Additional Information

Gene ID 6997

Other Names
Teratocarcinoma-derived growth factor 1, Cripto-1 growth factor, CRGF, Epidermal growth factor-like cripto protein CR1, TDGF1, CRIPTO

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2047b was selected from the C-term region of human TDGF1 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CRIPTO (TDGF1) Antibody (C-term) Blocking peptide - Protein Information

Name CRIPTO {ECO:0000303|PubMed:2792079, ECO:0000312|HGNC:HGNC:11701}

Function
GPI-anchored cell membrane protein involved in Nodal signaling. Cell-associated CRIPTO acts as a Nodal coreceptor in cis. Shedding of CRIPTO by TMEM8A modulates Nodal signaling by allowing soluble CRIPTO to act as a Nodal coreceptor on other cells (PubMed:27881714). Could play a role in the determination of the epiblastic cells that subsequently give rise to the mesoderm (PubMed:11909953).

Cellular Location
Cell membrane; Lipid-anchor, GPI-anchor. Secreted. Note=Released from the cell membrane by GPI cleavage.

Tissue Location
Preferentially expressed in gastric and colorectal carcinomas than in their normal counterparts. Expressed in breast and lung.

CRIPTO (TDGF1) Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

CRIPTO (TDGF1) Antibody (C-term) Blocking peptide - Images

CRIPTO (TDGF1) Antibody (C-term) Blocking peptide - Background

The human cDNA for CRIPTO, isolated from a teratocarcinoma cell line, encodes a protein of 188 amino acids. The central section has structural similarities with the human transforming growth factor alpha and epidermal growth factor (EGF). CRIPTO transcripts are detected only in undifferentiated cells and disappear after cell differentiation induced by retinoic acid treatment. The EGF-CFC (Cripto, Frl1, and Cryptic) gene family has an important role in vertebrate development. Cripto is required for germ-layer formation and the correct positioning of the anterior-posterior axis in mic; Cryptic (CFC1) is necessary for assignment of the left-right axis. Prior to gastrulation, Cripto expression is initially symmetric and uniform in the epiblast, and then becomes asymmetric in a proximal-distal gradient. Cripto gene when rendered inactive is fatal in the murine model. Cripto and Cryptic are essential cofactors for Nodal family proteins, which transduce signals for mesoderm development. Cryptic protein is required for appropriate symmetry development in humans. TDGF1, like CFC1, is an EGF-CFC family member and required coreceptor in NODAL signaling, a developmental program implicated in midline, forebrain, and left-right axis development in model organisms. A mutation in the conserved CFC domain of the TDGF1 gene has been identified in a patient with midline anomalies of the forebrain. The mutant protein was inactive in a zebrafish rescue assay.

CRIPTO (TDGF1) Antibody (C-term) Blocking peptide - References

Parisi, S., et al., J. Cell Biol. 163(2):303-314 (2003).Gray, P.C., et al., Proc. Natl. Acad. Sci. U.S.A. 100(9):5193-5198 (2003).Yan, Y.T., et al., Mol. Cell. Biol. 22(13):4439-4449 (2002).de la Cruz, J.M., et al., Hum. Genet. 110(5):422-428 (2002).Dono, R., et al., Am. J. Hum. Genet. 49(3):555-565 (1991).