ECT2 Antibody – Goat Polyclonal

PRODUCT OVERVIEW

Product Name	ECT2, Polyclonal Antibody
Full Product Name	Goat anti-ECT2 Antibody
Product Gene Name	anti-ECT2 antibody
Product Synonym Names	ECT2; epithelial cell transforming sequence 2 oncogene; FLJ10461; epithelial cell transforming sequence 2 oncogene protein; ECT2 antibody; epithelial cell transforming sequence 2 oncogene antibody; FLJ10461 antibody; epithelial cell transforming sequence 2 oncogene protein antibody
Immunogen Sequence	AENSVLTSTT GRT
Clonality	Polyclonal
Host	Goat
Species Reactivity	Tested: Human; Expected from sequence similarity: Human
Form/Format	Supplied at 0.5 mg/ml in Tris saline, 0. 02% sodium azide, pH7.3 with 0.5% bovine serum albumin.
Purity/Purification	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Concentration	100ug specific antibody in 200ul (lot specific)
Preparation and Storage	Aliquot and store at -20 degree C. Minimize freezing and thawing.
Antibody/Peptide Pairs	ECT2 peptide (MBS425684) is used for blocking the activity of ECT2 antibody (MBS420088)
Molecular Weight	100,051 Da
OMIM	600586
Immunogen	Peptide with sequence AENSVLTSTTGRT-C, from the N Terminus of the protein sequence according to NP_060568.3.
Epitope	N Terminus
ISO Certification	Manufactured in an ISO 9001:2008 Certified Laboratory.
Applications Tested/Suitable for anti-ECT2 antibody	Peptide ELISA (EIA), Western Blot (WB)
Application Notes for anti-ECT2 antibody	Peptide ELISA: Antibody detection limit dilution 1: 32000. Western Blot: Approx 100kDa band reported in human U87-MG glioblastoma lysate at 2.5ug/ml. A 30kDa band of unknown identity was also observed.
Related Product Information for anti-ECT2 antibody	MBS420088 is an antibody targeting ECT2. Also known as Goat anti-ECT2 Antibody. Reactive in Tested: Human; Expected from sequence similarity: Human. Host: Goat.
Other Notes	Small volumes of anti-ECT2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ECT2. It may not necessarily be applicable to this product.

NCBI GI #	21735572

NCBI GeneID	1894
NCBI Accession #	NP_060568.3
UniProt Secondary Accession #	Q0MT80; Q2M269; Q6U836; Q9NSV8; Q9NVW9
UniProt Related Accession #	Q9H8V3
GenBank Nucleotide #	NM_018098.5
NCBI Official Full Name	protein ECT2 isoform b
NCBI Official Synonym Full Names	epithelial cell transforming 2
NCBI Official Symbol	ECT2
NCBI Official Synonym Symbols	ARHGEF31
UniProt Protein Name	Protein ECT2
UniProt Synonym Protein Names	Epithelial cell-transforming sequence 2 oncogene
Protein Family	Protein
UniProt Gene Name	ECT2
UniProt Entry Name	ECT2_HUMAN
NCBI Protein Information	protein ECT2
NCBI Summary for ECT2	The protein encoded by this gene is a guanine nucleotide exchange factor and transforming protein that is related to Rho-specific exchange factors and yeast cell cycle regulators. The expression of this gene is elevated with the onset of DNA synthesis and remains elevated during G2 and M phases. In situ hybridization analysis showed that expression is at a high level in cells undergoing mitosis in regenerating liver. Thus, this protein is expressed in a cell cycle-dependent manner during liver regeneration, and is thought to have an important role in the regulation of cytokinesis. Several transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Apr 2012]

UniProt Comments for ECT2	ECT2: Guanine nucleotide exchange factor (GEF) that catalyzes the exchange of GDP for GTP. Promotes guanine nucleotide exchange on the Rho family members of small GTPases, like RHOA, RHOC, RAC1 and CDC42. Required for signal transduction pathways involved in the regulation of cytokinesis. Component of the centralspindlin complex that serves as a microtubule-dependent and Rho-mediated signaling required for the myosin contractile ring formation during the cell cycle cytokinesis. Regulates the translocation of RHOA from the central spindle to the equatorial region. Plays a role in the control of mitotic spindle assembly; regulates the activation of CDC42 in metaphase for the process of spindle fibers attachment to kinetochores before chromosome congression. Involved in the regulation of epithelial cell polarity; participates in the formation of epithelial tight junctions in a polarity complex PARD3-PARD6-protein kinase PRKCQ-dependent manner. Plays a role in the regulation of neurite outgrowth. Inhibits phenobarbital (PB)- induced NR1I3 nuclear translocation. Stimulates the activity of RAC1 through its association with the oncogenic PARD6A-PRKCI complex in cancer cells, thereby acting to coordinately drive tumor cell proliferation and invasion. Also stimulates genotoxic stress-induced RHOB activity in breast cancer cells leading to their cell death. 3 isoforms of the human protein are produced by alternative splicing. Protein type: GEFs; Motility/polarity/chemotaxis; GEFs, Rac/Rho Chromosomal Location of Human Ortholog: 3q26.1-q26.2 Cellular Component: cleavage furrow; cytoplasm; cytosol; intercellular junction; midbody; nucleus; tight junction Molecular Function: GTPase activator activity; guanyl-nucleotide exchange factor activity; protein binding; protein homodimerization activity; Rho GTPase binding; Rho guanyl-nucleotide exchange factor activity; signal transducer activity Biological Process: activation of protein kinase activity; cell morphogenesis; cytokinesis; positive regulation of apoptosis; positive regulation of cytokinesis; positive regulation of GTPase activity; positive regulation of I-kappaB kinase/NF-kappaB cascade; positive regulation of neuron differentiation; positive regulation of protein import into nucleus; protein homooligomerization; protein transport; regulation of attachment of spindle microtubules to kinetochore; regulation of protein kinase activity; regulation of Rho protein signal transduction; regulation of small GTPase mediated signal transduction
Research Articles on ECT2	**1.** Colorectal cancer patients with high expression levels of ECT2 had shorter overall survival.
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