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ADA2 Rabbit pAb

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Catalog # AP59100

Product Information

Primary Accession	Q9NZK5
Reactivity	Human
Predicted	Pig
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58934
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ADA2
Epitope Specificity	421-511/511
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Secreted
SIMILARITY	Belongs to the adenosine and AMP deaminases family. ADGF subfamily.
SUBUNIT	Homodimer. Interacts with adenosine receptors. Binds heparin.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	CECR1 is a member of the adenosine and AMP deaminases family. It may act as a growth factor and have adenosine deaminase activity. It is a candidate gene for cat eye syndrome. Two transcript variants encoding distinct isoforms have been identified for this gene. Adenosine deaminase is an enzyme that is present in most tissues and exists predominantly as a monomer, although in some tissues it is associated with adenosine deaminase-binding protein. Adenosine deaminase degrades extracellular adenosine, which is toxic for lymphocytes. A novel family of growth factors that share sequence similarity to adenosine deaminase has been identified. The cat eye syndrome critical region protein (CECR) family includes CECR1, CECR2, CECR3, CECR4, CECR5, CECR6, CECR7, CECR8 and CECR9. The genes encoding CECR proteins are candidates for Cat Eye Syndrome (CES), a developmental disorder associated with the duplication of a 2 Mb region of 22q11.2. CES is characterized by the combination of coloboma of the iris and anal atresia with fistula, downslanting palpebral fissures, preauricular tags and/or pits, frequent occurrence of heart and renal malformations, and normal or near-normal mental development. CECR family members are widely expressed. Specifically, CECR1 has the highest expression in adult heart, lung, lymphoblasts and placenta. CECR2 is also involved in neurulation and chromatin remodeling. Mutations in the CECR2 gene result in neural tube defects.

Additional Information

Gene ID	51816
Other Names	Adenosine deaminase 2 {ECO:0000312|HGNC:HGNC:1839}, 3.5.4.4, Cat eye syndrome critical region protein 1, ADA2 (HGNC:1839), ADGF, CECR1, IDGFL
Target/Specificity	Detected in blood plasma (at protein level). Widely expressed, with most abundant expression in human adult heart, lung, lymphoblasts, and placenta as well as fetal lung, liver, and kidney. In embryo, expressed in the outflow tract and atrium of the developing heart, the VII/VIII cranial nerve ganglion, and the notochord.
Dilution	Flow-Cyt=1ug/test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

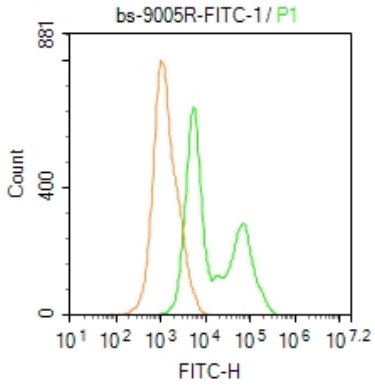
Protein Information

Name	ADA2 (HGNC:1839)
Synonyms	ADGF, CECR1, IDGFL
Function	Adenosine deaminase that may contribute to the degradation of extracellular adenosine, a signaling molecule that controls a variety of cellular responses. Requires elevated adenosine levels for optimal enzyme activity. Binds to cell surfaces via proteoglycans and may play a role in the regulation of cell proliferation and differentiation, independently of its enzyme activity.
Cellular Location	Secreted
Tissue Location	Detected in blood plasma (at protein level). Widely expressed, with most abundant expression in human adult heart, lung, lymphoblasts, and placenta as well as fetal lung, liver, and kidney. In embryo, expressed in the outflow tract and atrium of the developing heart, the VII/VIII cranial nerve ganglion, and the notochord

Background

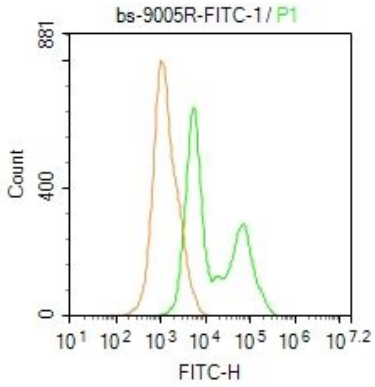
CECR1 is a member of the adenosine and AMP deaminases family. It may act as a growth factor and have adenosine deaminase activity. It is a candidate gene for cat eye syndrome. Two transcript variants encoding distinct isoforms have been identified for this gene.
Adenosine deaminase is an enzyme that is present in most tissues and exists predominantly as a monomer, although in some tissues it is associated with adenosine deaminase-binding protein. Adenosine deaminase degrades extracellular adenosine, which is toxic for lymphocytes. A novel family of growth factors that share sequence similarity to adenosine deaminase has been identified. The cat eye syndrome critical region protein (CECR) family includes CECR1, CECR2, CECR3, CECR4, CECR5, CECR6, CECR7, CECR8 and CECR9. The genes encoding CECR proteins are candidates for Cat Eye Syndrome (CES), a developmental disorder associated with the duplication of a 2 Mb region of 22q11.2. CES is characterized by the combination of coloboma of the iris and anal atresia with fistula, downslanting palpebral fissures, preauricular tags and/or pits, frequent occurrence of heart and renal malformations, and normal or near-normal mental development. CECR family members are widely expressed. Specifically, CECR1 has the highest expression in adult heart, lung, lymphoblasts and placenta. CECR2 is also involved in neurulation and chromatin remodeling. Mutations in the CECR2 gene result in neural tube defects.

Images



Blank control: Molt4.
Primary Antibody (green line): Rabbit Anti-CECR1/FITC Conjugated antibody (AP59100-FITC)
Dilution: 1 µg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG-FITC .

Protocol
The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at-20℃. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. The cells were stained with Primary Antibody for 30 min at room temperature. Acquisition of 20,000 events was performed.



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