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DERA Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55501

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9Y315
Reactivity	Rat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35231
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DERA
Epitope Specificity	251-318/318
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the deoC/fbaB aldolase family. DeoC type 2 subfamily.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	DERA is a 318 amino acid member of the deoC/fbaB aldolase protein family. Involved in the carbohydrate degradation pathway, DERA catalyzes the conversion of 2-deoxy-D-ribose 5-phosphate to D-glyceraldehyde 3-phosphate and an acetyldehyde. The gene that encodes DERA maps to human chromosome 12, which encodes over 1,100 genes within 132 million bases, making up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12, including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Noonan syndrome, which includes heart and facial developmental defects among the primary symptoms, is caused by a mutant form of PTPN11 gene product, SH-PTP2. Chromosome 12 is also home to a homeobox gene cluster, which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster encoding C-type lectin proteins which mediate the NK cell response to MHC I interaction. Trisomy 12p leads to facial development defects, seizure disorders and a host of other symptoms varying in severity depending on the extent of mosaicism and is most severe in cases of complete trisomy.

Additional Information

Gene ID	51071
Other Names	Deoxyribose-phosphate aldolase, DERA, 4.1.2.4, 2-deoxy-D-ribose 5-phosphate aldolase, Phosphodeoxyriboaldolase, Deoxyriboaldolase, DERA
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	DERA
Function	Catalyzes a reversible aldol reaction between acetaldehyde and D-glyceraldehyde 3-phosphate to generate 2-deoxy-D-ribose 5- phosphate. Participates in stress granule (SG) assembly. May allow ATP production from extracellular deoxyinosine in conditions of energy deprivation.
Cellular Location	Cytoplasm. Cytoplasmic granule. Nucleus. Note=Recruited to stress granules but not to processing bodies upon arsenite or clotrimazole treatment or energy deprivation.
Tissue Location	Mainly expressed in liver, lung and colon.