



Rabbit Anti-GDI1 antibody

SL13324R

Product Name:	GDI1
Chinese Name:	精神发育迟滞相关蛋白Rab GDI α 抗体
Alias:	1A; FLJ41411; GDI-1; gdi1; GDIA_HUMAN; GDIL; GDP dissociation inhibitor 1; Guanosine diphosphate dissociation inhibitor 1; Mental retardation X-linked 41; Mental retardation X-linked 48; MRX41; MRX48; Oligophrenin 2; Oligophrenin-2; OPHN2; Protein XAP 4; Protein XAP-4; Protein XAP4; Rab GDI alpha; Rab GDP dissociation inhibitor alpha; RABGD1A; RABGDIA; XAP 4.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Rabbit,Zebrafish,Sheep,Chimpanzee
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	51kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human GDI1:1-100/447
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 癆 for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20癆. 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 癆.
PubMed:	PubMed
Product Detail:	Rab proteins, a family of Ras-related small GTP-binding proteins, play a key role in regulating intracellular vesicle trafficking (1?). Rab GDP dissociation inhibitor (Rab

GDI or GDI2) forms a soluble complex with Rab proteins and thereby prevents the exchange of GDP for GTP (1?). In mammals, there exist two major isoforms, Rab GDI alpha (also known as XAP-4) and Rab GDI beta (1,4). While the mammalian Rab GDI beta-genes are ubiquitously expressed, the Rab GDI ?genes are predominantly brain-specific (1). Since it is expressed predominantly in neural and sensory tissues, Rab GDI a may serve a specific function in neural signal transmission (5). The gene sequences for the Rab GDI proteins are extremely conserved in evolution, with substantial homology preserved across three eukaryotic kingdoms (5).

Function:

Regulates the GDP/GTP exchange reaction of most Rab proteins by inhibiting the dissociation of GDP from them, and the subsequent binding of GTP to them.

Subunit:

Interacts with RHOH. Interacts with RAB10; negatively regulates RAB10 association with membranes and activation.

Subcellular Location:

Cytoplasm.

Tissue Specificity:

Brain; predominant in neural and sensory tissues.

DISEASE:

Defects in GDI1 are the cause of mental retardation X-linked type 41 (MRX41) [MIM:300104]. Mental retardation is characterized by significantly sub-average general intellectual functioning associated with impairments in adaptive behavior and manifested during the developmental period. Non-syndromic mental retardation patients do not manifest other clinical signs.

Defects in GDI1 are the cause of mental retardation X-linked type 48 (MRX48) [MIM:300104]; also known as MRX3.

Similarity:

Belongs to the Rab GDI family.

SWISS:

P31150

Gene ID:

2664

Database links:

[Entrez Gene: 2664](#)Human

[Entrez Gene: 14567](#)Mouse

[Entrez Gene: 25183](#)Rat

[Olim: 300104](#)Human

[SwissProt: P31150](#)Human

[SwissProt: P50396](#)Mouse

[SwissProt: P50398](#)Rat

[Unigene: 74576](#)Human

[Unigene: 205830](#)Mouse

[Unigene: 4000](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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