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Rabbit Anti-RAI1 antibody

SL11940R

Product Name:	RAI1
Chinese Name:	维甲酸诱导蛋白1抗体
Alias:	DKFZP434A139; KIAA1820; MGC12824; retinoic acid induced 1; Retinoid acid induced protein 1; SMCR; SMS; RAI1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	WB=1:500-2000ELISA=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:	203kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human RAI1/Retinoid acid induced protein 1:421-520/1906
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 °C 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°C. 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.
PubMed:	PubMed
Product Detail:	Retinoic acid induced 1 (RAI1) is a 1,906 amino acid protein containing an N-terminal polyglutamine stretch that is expressed in most tissues, with highest expression in neuronal tissues. RAI1 functions as a transcriptional regulator and is important for embryonic and postnatal developments. Heterozygous deletions of the RAI1 gene are associated with Smith-Magenis syndrome (SMS), a mental retardation syndrome with

behavioral, neurological and skeletal anomalies. Individuals affected with SMS usually display self-injurious behaviors, sleep disturbance, developmental delay and reduced motor and cognitive skills. RAI1 haploinsufficiency is specifically responsible for the obesity and craniofacial symptoms of SMS. RAI1 mutations have also been implicated in schizophrenia and spinocerebellar ataxia type 2.

Function:
RAI1 (retinoid-acid induced protein 1) may be involved in neuronal differentiation. RAI1 is highly similar to its mouse counterpart and is expressed at high levels mainly in neuronal tissues. RAI1 has a polymorphic polyglutamine tract in it's N-terminal domain. Expression of the mouse counterpart in neurons is induced by retinoic acid. The RAI1 gene is associated with both the severity of the phenotype and the response to medication in schizophrenic patients. Defects in RAI1 are a cause of Smith-Magenis syndrome (SMS). There are four named isoforms.

Subcellular Location:
Cytoplasmic and Nuclear. In neurons it is localized to neurites.

Tissue Specificity:
Expressed in all tissues examined with higher expression in the heart and brain. No expression was seen in the corpus callosum of the brain.

DISEASE:
Defects in RAI1 are a cause of Smith-Magenis syndrome (SMS) [MIM:182290]. SMS is characterized by congenital mental retardation associated with development and growth delays. Affected persons have characteristic behavioral abnormalities, including self-injurious behaviors and sleep disturbance, and distinct craniofacial and skeletal anomalies.

Similarity:
Contains 1 PHD-type zinc finger.

SWISS:
Q7Z5J4

Gene ID:
10743

Database links:

Entrez Gene: 10743 Human

Omim: 607642 Human

SwissProt: Q7Z5J4 Human

	Unigene: 655395 Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.