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ERC1 Rabbit pAb

Catalog # AP97811

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q8IUD2
Other Accession	Q8IUD2
Reactivity	Rat
Predicted	Pig, Human, Mouse, Rabbit, Chicken, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	128086
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ERC1
Epitope Specificity	751-850/1116
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 FIP-RBD domain.
SUBUNIT	Part of a complex with CHUK, IKBKB and IKBKG. Interacts with CHUK, IKBKB and IKBKG. The interaction with IKBKG is independent of CHUK and IKBKB. Interacts with NFKBIA. Isoform 4 interacts with PPFIA1, and through its C-terminus with the PDZ domains of RIMS1 and RIMS2. Interacts with ERC2/CAST1. Interacts with the GTB-bound forms of RAB6A isoform 1 and isoform 2 and with RAB6B. The interaction was strongest with RAB6B, followed by RAB6A isoform 2 and weakest with RAB6A isoform 1 (By similarity).
DISEASE	Defects in ERC1 are a cause of thyroid papillary carcinoma (TPC) [MIM:188550]. TPC is a common tumor of the thyroid that typically arises as an irregular, solid or cystic mass from otherwise normal thyroid tissue. Papillary carcinomas are malignant neoplasm characterized by the formation of numerous, irregular, finger-like projections of fibrous stroma that is covered with a surface layer of neoplastic epithelial cells. Note=A chromosomal aberration involving ERC1/RAB6IP2 is found in cause of thyroid papillary carcinomas. Translocation t(10;12)(q11;p13) involving RET. In vitro, isoform 1, isoform 3 and isoform 5 participating in a ERC1-RET fusion protein activate tyrosine-protein kinase activity.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene is a member of a family of RIM-binding proteins. RIMs are active zone proteins that regulate neurotransmitter release. This gene has been found fused to the receptor-type tyrosine kinase gene RET by gene rearrangement due to the translocation t(10;12)(q11;p13). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	23085
Other Names	Cast2; ELKS; ERC-1; RAB6IP2; 4930404L01Rik; 5033405M01Rik; 9630025C19Rik; B430107L16Rik; Elks1; RAB6IP2A; RAB6IP2B; mKIAA1081; CAST; ERC; ERC1b; RB6I2_HUMAN; ERC1; Rab6-interacting protein 2; KIAA1081; RB6I2_MOUSE; CAZ-associated structural protein 2 (CAST2); RB6I2_RAT; ELKS/RAB6-interacting/CAST family member 1; RAB6 interacting protein 2
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	ERC1
Synonyms	ELKS, KIAA1081, RAB6IP2
Function	Regulatory subunit of the IKK complex. Probably recruits IkappaBalpha/NFKBIA to the complex. May be involved in the organization of the cytomatrix at the nerve terminals active zone (CAZ) which regulates neurotransmitter release. May be involved in vesicle trafficking at the CAZ. May be involved in Rab-6 regulated endosomes to Golgi transport.
Cellular Location	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm {ECO:0000250|UniProtKB:Q811U3}. Membrane; Peripheral membrane protein. Golgi apparatus membrane; Peripheral membrane protein. Presynaptic cell membrane {ECO:0000250|UniProtKB:Q811U3}. Cell projection, podosome {ECO:0000250|UniProtKB:Q99MI1}. Note=Recruited on Golgi membranes by RAB6A in a GTP-dependent manner (By similarity). Localized to the cortex of myotube podosomes (By similarity). {ECO:0000250, ECO:0000250|UniProtKB:Q99MI1}
Tissue Location	Widely expressed. Isoform 2 and isoform 4 are abundantly expressed in brain. Isoform 1 and isoform 3 are predominantly expressed in testis and thyroid, and isoform 1 predominates in other tissues tested.

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