

Product datasheet for **TA351022S**

CACNA1A Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC
Recommended Dilution:	IHC: 15-50 Positive control: Human liver cancer Predicted cell location: Cytoplasm
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide of human CACNA1A
Formulation:	pH7.4 PBS, 0.05% NaN ₃ , 40% Glycerol
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	calcium voltage-gated channel subunit alpha1 A
Database Link:	NP_075461 Entrez Gene 773 Human O00555



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Background:

Voltage-dependent calcium channels mediate the entry of calcium ions into excitable cells, and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, and gene expression. Calcium channels are multisubunit complexes composed of alpha-1, beta, alpha-2/delta, and gamma subunits. The channel activity is directed by the pore-forming alpha-1 subunit, whereas, the others act as auxiliary subunits regulating this activity. The distinctive properties of the calcium channel types are related primarily to the expression of a variety of alpha-1 isoforms, alpha-1A, B, C, D, E, and S. This gene encodes the alpha-1A subunit, which is predominantly expressed in neuronal tissue. Mutations in this gene are associated with 2 neurologic disorders, familial hemiplegic migraine and episodic ataxia 2. This gene also exhibits polymorphic variation due to (CAG)_n-repeats. Multiple transcript variants encoding different isoforms have been found for this gene. In one set of transcript variants, the (CAG)_n-repeats occur in the 3' UTR, and are not associated with any disease. But in another set of variants, an insertion extends the coding region to include the (CAG)_n-repeats which encode a polyglutamine tract. Expansion of the (CAG)_n-repeats from the normal 4-16 to 21-28 in the coding region is associated with spinocerebellar ataxia 6.

Synonyms:

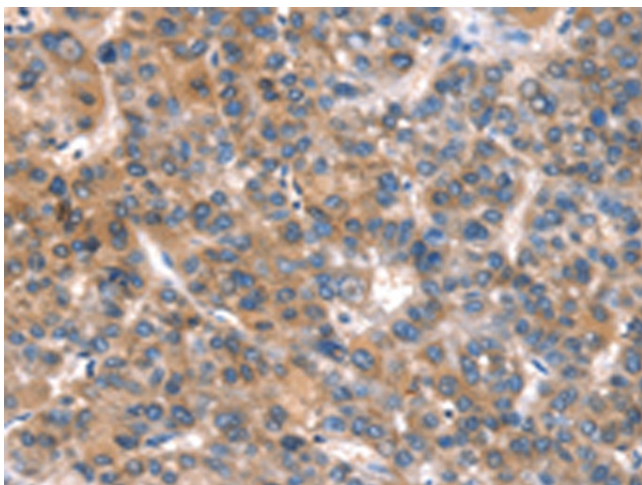
APCA; BI; CACNL1A4; CAV2.1; EA2; EIEE42; FHM; HPCA; MHP; MHP1; SCA6

Protein Families:

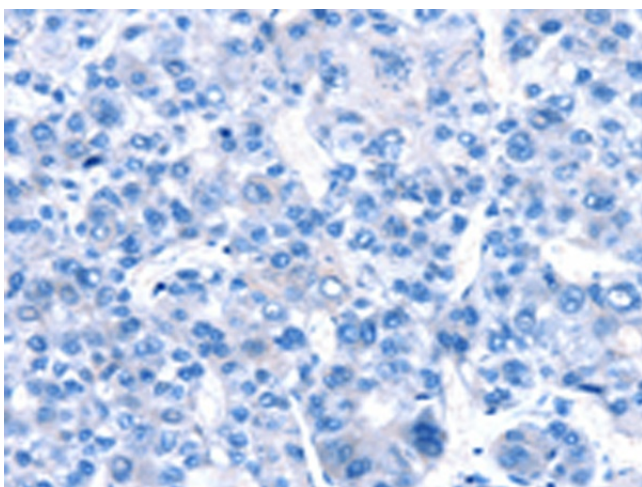
Druggable Genome, Ion Channels: Calcium, Transmembrane

Protein Pathways:

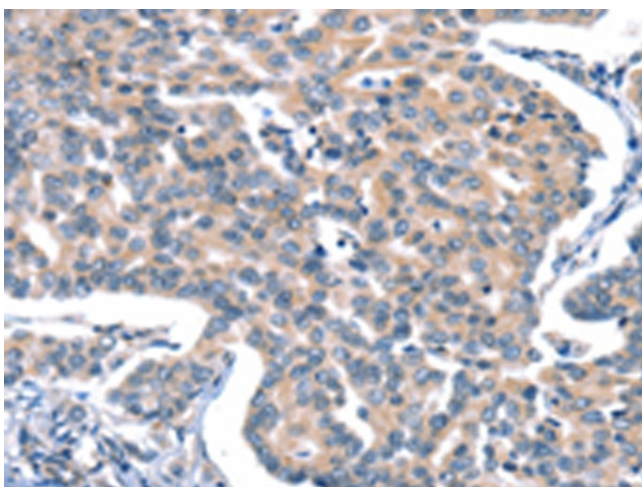
Calcium signaling pathway, Long-term depression, MAPK signaling pathway, Taste transduction, Type II diabetes mellitus

Product images:

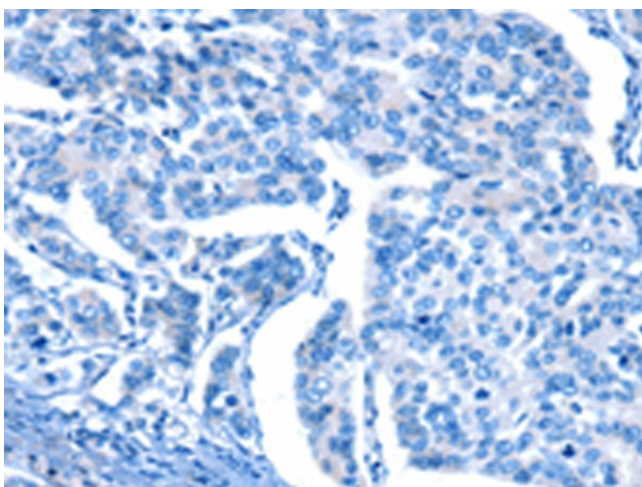
Immunohistochemistry of paraffin-embedded Human liver cancer tissue using [TA351022] (CACNA1A Antibody) at dilution 1/15 (Original magnification: ×200)



Immunohistochemistry of paraffin-embedded Human liver cancer tissue using [TA351022] (CACNA1A Antibody) at dilution 1/15, treated with synthetic peptide. (Original magnification: $\times 200$)



Immunohistochemistry of paraffin-embedded Human gastric cancer tissue using [TA351022] (CACNA1A Antibody) at dilution 1/15 (Original magnification: $\times 200$)



Immunohistochemistry of paraffin-embedded Human gastric cancer tissue using [TA351022] (CACNA1A Antibody) at dilution 1/15, treated with synthetic peptide. (Original magnification: $\times 200$)