

## CACNA1A Antibody

Catalog No: #37454

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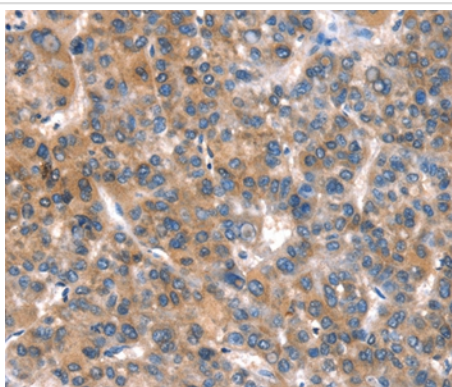
## Description

Product Name	CACNA1A Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antigen affinity purification.
Applications	IHC
Species Reactivity	Hu
Specificity	The antibody detects endogenous levels of total CACNA1A protein.
Immunogen Type	Peptide
Immunogen Description	Synthetic peptide corresponding to a region derived from internal residues of human calcium channel, voltage-dependent, P/Q type, alpha 1A subunit
Target Name	CACNA1A
Other Names	BI; EA2; FHM; MHP; APCA; HPCA; MHP1; SCA6; CAV2.1; CACNL1A4
Accession No.	Swiss-Prot#: O00555NCBI Gene ID: 773Gene Accssion: NP_001120694
Uniprot	O00555
GeneID	773;
Concentration	1.5mg/ml
Formulation	Rabbit IgG in pH7.4 PBS, 0.05% NaN <sub>3</sub> , 40% Glycerol.
Storage	Store at -20°C

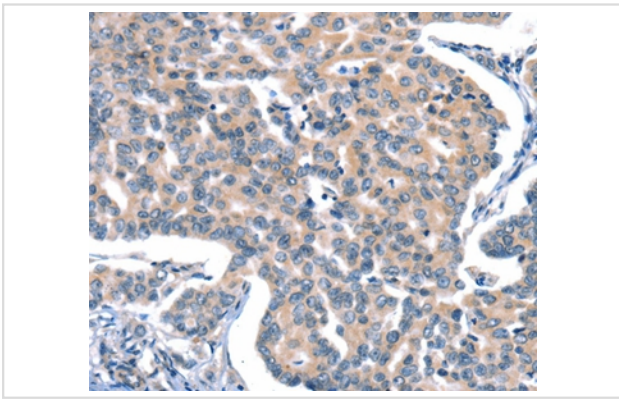
## Application Details

Immunohistochemistry: 1:15-1:50

## Images



Immunohistochemical analysis of paraffin-embedded Human liver cancer tissue using #37454 at dilution 1/15.



Immunohistochemical analysis of paraffin-embedded Human gastric cancer tissue using #37454 at dilution 1/15.

## 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.

Note: This product is for in vitro research use only