

## CACNA1A Conjugated Antibody

Catalog No: #C37454



Package Size: #C37454-AF350 100ul #C37454-AF405 100ul #C37454-AF488 100ul  
 #C37454-AF555 100ul #C37454-AF594 100ul #C37454-AF647 100ul  
 #C37454-AF680 100ul #C37454-AF750 100ul #C37454-Biotin 100ul

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## Description

Product Name	CACNA1A Conjugated Antibody
Host Species	Rabbit
Clonality	Polyclonal
Species Reactivity	Hu
Specificity	The antibody detects endogenous levels of total CACNA1A protein.
Immunogen Description	Synthetic peptide corresponding to a region derived from internal residues of human calcium channel, voltage-dependent, P/Q type, alpha 1A subunit
Conjugates	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Other Names	BI; EA2; FHM; MHP; APCA; HPCA; MHP1; SCA6; CAV2.1; CACNL1A4
Accession No.	Swiss-Prot#:O00555NCBI Gene ID:773NCBI Protein#:NP_001192222
Uniprot	O00555
GeneID	773;
Excitation Emission	AF350: 346nm/442nm AF405: 401nm/421nm AF488: 493nm/519nm AF555: 555nm/565nm AF594: 591nm/614nm AF647: 651nm/667nm AF680: 679nm/702nm AF750: 749nm/775nm
Formulation	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Storage	Store at 4°C in dark for 6 months

## Application Details

## Suggested Dilution:

AF350 conjugated: most applications: 1: 50 - 1: 250

AF405 conjugated: most applications: 1: 50 - 1: 250

AF488 conjugated: most applications: 1: 50 - 1: 250

AF555 conjugated: most applications: 1: 50 - 1: 250

AF594 conjugated: most applications: 1: 50 - 1: 250

AF647 conjugated: most applications: 1: 50 - 1: 250

AF680 conjugated: most applications: 1: 50 - 1: 250

AF750 conjugated: most applications: 1: 50 - 1: 250

Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1: 50 - 1: 1,000

## Background

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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.

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Note: This product is for in vitro research use only