CA2 Conjugated Antibody

Catalog No: #C32279

Package Size: #C32279-AF350 100ul #C32279-AF405 100ul #C32279-AF488 100ul #C32279-AF555 100ul #C32279-AF594 100ul #C32279-AF647 100ul #C32279-AF680 100ul #C32279-AF750 100ul #C32279-Biotin 100ul

Orders: order@signalwayantibody.com
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Description

Product Name	CA2 Conjugated Antibody
Host Species	Rabbit
Clonality	Polyclonal
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of total CA2 protein.
Immunogen Description	Recombinant protein of human CA2.
Conjugates	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Other Names	CAC;CAII;Car2;CA-II
Accession No.	Swiss-Prot#:P00918NCBI Gene ID:760
Uniprot	P00918
GeneID	760;
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
Calculated MW	29
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

Product Description

Antibodies were purified by affinity purification using immunogen.

Background

Carbonic anhydrases (CA) are a family of ancient zinc metalloenzymes found in almost all living organisms. All CA can be divided into 3 distinct classes (α, β, and γ) that evolved independently and have no significant homology in sequence and overall folding. All functional CA catalyze the reversible hydration of CO2 into HCO3- and H+ and contain a zinc atom in the active sites essential for catalysis. There are many isoforms of CA in mammals and they all belong to the α class (1,2).
CA2 is a cytosolic member of the α class. It is the most widely distributed isoform among the mammalian CAs (1). Defects in CA2 are associated with osteopetrosis and renal tubular acidosis (3-5). Elevated expression of CA2 is observed in patients with AlzheimerоΩ½оΩ½s disease and the developing brains of Down syndrome patients (6,7). CA2 is also overexpressed in Gastrointestinal Stromal Tumors (GISTs) and is considered a useful marker for diagnosis (8). Recently, CA2 was reported to facilitate transporter activity of the monocarboxylate transporter isoform 1 and 4 (MCT1/4) independent of its own catalytic activity (9,10)

Note: This product is for in vitro research use only