

KD-Validated Anti-Carbonic anhydrase II Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AG11195

Specification

KD-Validated Anti-Carbonic anhydrase II Rabbit Monoclonal Antibody - Product Information

Application	WB, FC, ICC
Primary Accession	P00918
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 29 kDa , observed, 29 kDa KDa
Gene Name	CA2
Aliases	CA2; Carbonic Anhydrase 2; CA-II; Carbonic Anhydrase II; CAII; Carbonate Dehydratase II; Cyanamide Hydratase CA2; Carbonic Anhydrase C; EC 4.2.1.1; Car2; CAC; Epididymis Secretory Protein Li 282; Epididymis Luminal Protein 76; Carbonic Anhydrase B; Carbonic Dehydratase; EC 4.2.1.69; HEL-S-282; HEL-76; CAR2
Immunogen	A synthesized peptide derived from human Carbonic anhydrase 2

KD-Validated Anti-Carbonic anhydrase II Rabbit Monoclonal Antibody - Additional Information

Gene ID	760
Other Names	Carbonic anhydrase 2, 4.2.1.1, Carbonate dehydratase II, Carbonic anhydrase C, CAC, Carbonic anhydrase II, CA-II, Cyanamide hydratase CA2, 4.2.1.69, CA2

KD-Validated Anti-Carbonic anhydrase II Rabbit Monoclonal Antibody - Protein Information

Name CA2

Function

Catalyzes the reversible hydration of carbon dioxide (PubMed:11327835, PubMed:11802772, PubMed:11831900, PubMed:12056894, PubMed:12171926, PubMed:1336460, PubMed:14736236, PubMed:15300855, PubMed:15300855)

[15453828](http://www.uniprot.org/citations/15453828) PubMed: [15667203](http://www.uniprot.org/citations/15667203) PubMed: [15865431](http://www.uniprot.org/citations/15865431) PubMed: [16106378](http://www.uniprot.org/citations/16106378) PubMed: [16214338](http://www.uniprot.org/citations/16214338) PubMed: [16290146](http://www.uniprot.org/citations/16290146) PubMed: [16686544](http://www.uniprot.org/citations/16686544) PubMed: [16759856](http://www.uniprot.org/citations/16759856) PubMed: [16807956](http://www.uniprot.org/citations/16807956) PubMed: [17127057](http://www.uniprot.org/citations/17127057) PubMed: [17251017](http://www.uniprot.org/citations/17251017) PubMed: [17314045](http://www.uniprot.org/citations/17314045) PubMed: [17330962](http://www.uniprot.org/citations/17330962) PubMed: [17346964](http://www.uniprot.org/citations/17346964) PubMed: [17540563](http://www.uniprot.org/citations/17540563) PubMed: [17588751](http://www.uniprot.org/citations/17588751) PubMed: [17705204](http://www.uniprot.org/citations/17705204) PubMed: [18024029](http://www.uniprot.org/citations/18024029) PubMed: [18162396](http://www.uniprot.org/citations/18162396) PubMed: [18266323](http://www.uniprot.org/citations/18266323) PubMed: [18374572](http://www.uniprot.org/citations/18374572) PubMed: [18481843](http://www.uniprot.org/citations/18481843) PubMed: [18618712](http://www.uniprot.org/citations/18618712) PubMed: [18640037](http://www.uniprot.org/citations/18640037) PubMed: [18942852](http://www.uniprot.org/citations/18942852) PubMed: [1909891](http://www.uniprot.org/citations/1909891) PubMed: [1910042](http://www.uniprot.org/citations/1910042) PubMed: [19170619](http://www.uniprot.org/citations/19170619) PubMed: [19186056](http://www.uniprot.org/citations/19186056) PubMed: [19206230](http://www.uniprot.org/citations/19206230) PubMed: [19520834](http://www.uniprot.org/citations/19520834) PubMed: [19778001](http://www.uniprot.org/citations/19778001) PubMed: [7761440](http://www.uniprot.org/citations/7761440) PubMed: [7901850](http://www.uniprot.org/citations/7901850) PubMed: [8218160](http://www.uniprot.org/citations/8218160) PubMed: [8262987](http://www.uniprot.org/citations/8262987) PubMed: [8399159](http://www.uniprot.org/citations/8399159) PubMed: [8451242](http://www.uniprot.org/citations/8451242) PubMed: [8485129](http://www.uniprot.org/citations/8485129) PubMed: [8639494](http://www.uniprot.org/citations/8639494) PubMed: [9265618](http://www.uniprot.org/citations/9265618) PubMed: [9398308](http://www.uniprot.org/citations/9398308)). Can also hydrate cyanamide to urea (PubMed: [10550681](http://www.uniprot.org/citations/10550681) PubMed: [11015219](http://www.uniprot.org/citations/11015219)). Stimulates the chloride-bicarbonate exchange activity of SLC26A6 (PubMed: [15990874](http://www.uniprot.org/citations/15990874)). Essential for bone resorption and osteoclast differentiation (PubMed: [15300855](http://www.uniprot.org/citations/15300855)). Involved in the regulation of fluid secretion into the anterior chamber of the eye. Contributes to intracellular pH regulation in the duodenal upper villous epithelium during proton-coupled peptide absorption.

Cellular Location

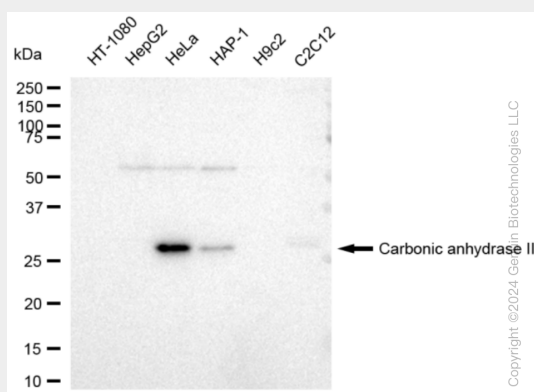
Cytoplasm. Cell membrane. Note=Colocalized with SLC26A6 at the surface of the cell membrane in order to form a bicarbonate transport metabolon. Displaced from the cytosolic surface of the cell membrane by PKC in phorbol myristate acetate (PMA)-induced cells

KD-Validated Anti-Carbonic anhydrase II Rabbit Monoclonal Antibody - Protocols

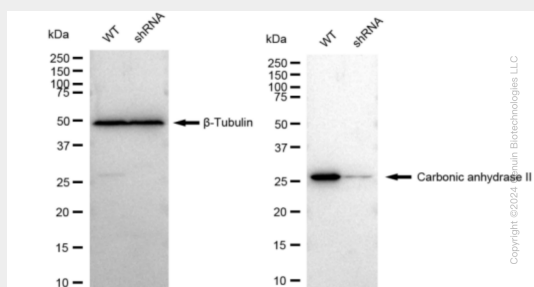
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

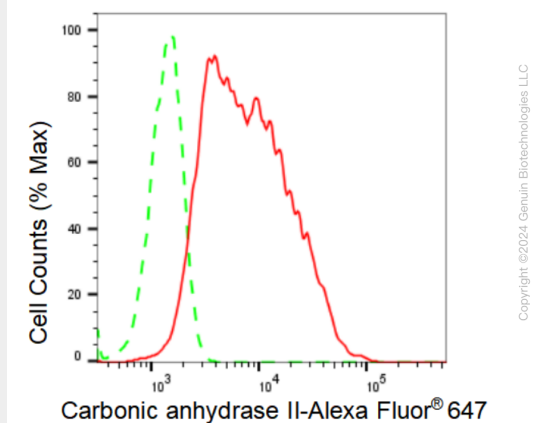
KD-Validated Anti-Carbonic anhydrase II Rabbit Monoclonal Antibody - Images



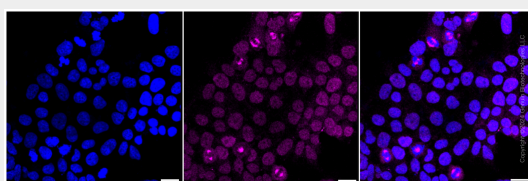
Western blotting analysis using anti-Carbonic anhydrase II antibody (Cat#AGI1195). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Carbonic anhydrase II antibody (Cat#AGI1195, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Carbonic anhydrase II antibody (Cat#AGI1195). Carbonic anhydrase II expression in wild type (WT) and Carbonic anhydrase II shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Carbonic anhydrase II antibody (Cat#AGI1195, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Carbonic anhydrase II expression in HeLa cells using Carbonic anhydrase II antibody (Cat#AGI1195, 1:2,000). Green, isotype control; red, Carbonic anhydrase II.



Immunocytochemical staining of HeLa cells with Carbonic anhydrase II antibody (Cat#AGI1195, 1:1,000). Nuclei were stained blue with DAPI; Carbonic anhydrase II was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 μ m.