Human BAI1 Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse IgG_{2A} Clone # 1019031
Catalog Number: FAB49692T
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BAI1 in direct ELISAs.
Source	Monoclonal Mouse IgG_{2A} Clone # 1019031
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	HEK293 human embryonic kidney cell line transfected with human BAI1 Ala31-Thr879 Accession # O14514
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10^6 cells	HEK293 Human Cell Line Transfected with Human BAI1 and eGFP

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Brain Angiogenesis Inhibitor 1 (BAI1) is a 170 kDa 7-transmembrane domain G protein-coupled receptor (GPCR) that has a large N-terminal extracellular region with an RGD motif, five thrombospondin type I repeats, and a juxtamembrane GPS (GPCR proteolytic cleavage site) (1). Within the extracellular domain (ECD) up to the GPS (amino acids 31-879), mature human BAI1 shares 94% amino acid sequence identity with mouse and rat BAI1. BAI1 is preferentially expressed on brain neurons but also is found on astrocytes and macrophages and in the pancreas, stomach, and colon (1-8). BAI1 can be cleaved within the GPS to release a 120 kDa fragment termed Vasculostatin which corresponds to nearly the entire N-terminal ECD (9). Generation of additional soluble fragments suggests the cleavage of BAI1 at multiple sites (9, 10). BAI1 fragments interact with Integrin αVβ5 or CD36 on microvascular endothelial cells to inhibit cell proliferation and migration (10, 11). Overexpression of BAI1 in glioblastoma or pancreatic adenocarcinoma cells inhibits their tumorigenicity and the development of tumor-associated neovascularization (6, 12). Fragments of the ECD, including Vasculostatin, also suppress *in vivo* angiogenesis and tumor growth (1, 9, 11). BAI1 is down-regulated in glioblastoma, carcinomas of the pancreas, colon, and stomach and also in experimental ischemia (2, 4, 6-8). Its expression is inversely correlated with tumor vascularity in colorectal and pulmonary carcinomas (8, 13). On macrophages and astrocytes, BAI1 mediates the phagocytosis of apoptotic cells through recognition of cell surface phosphatidylserine (5).

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