Human Guanylyl Cyclase C/GUCY2C Alexa Fluor® 594-conjugated Antibody

Monoclonal Rabbit IgG Clone # 2543C
Catalog Number: FAB2157T
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Guanylyl Cyclase C/GUCY2C in direct ELISAs.
Source	Monoclonal Rabbit IgG Clone # 2543C
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Human embryonic kidney cell HEK293-derived human Guanylyl Cyclase C/GUCY2C Ser21-Gln430 Accession # P25092
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 GUCY2C 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

GUCY2C (Guanylyl Cyclase C), also known as heat-stable enterotoxin receptor, is a type I transmembrane protein of the guanylate cyclase (gc) family that signal by producing cGMP (1, 2). GUCY2C contains a 23 amino acid (aa) signal sequence, a 407 aa extracellular region (ECD), a 24 aa transmembrane (TM) segment and a 619 aa cytoplasmic domain (3). The ECD of human GUCY2C shares 71% and 72% aa identity with mouse and rat GUCY2C, respectively (4). GUCY2C was first identified as the intestinal epithelial receptor regulating fluid and electrolyte transport in the secretory diarrhea induced by bacterial enterotoxins (5). Endogenous ligands of GUCY2C include guanylin and uroguanylin (6). GUCY2C in epithelial cells plays an important role in cell dynamics and homeostatic balance of proliferation, metabolism, and differentiation that organizes the guanylyl cyclase C hormone axis (2, 6). GUCY2C is also expressed in the brain and is implicated in attention deficiency and hyperactive behavior (2, 7). CAR-T cell therapy utilizing GUCY2C to treat metastatic colorectal cancer is currently being explored (8).

References:

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PRODUCT SPECIFIC NOTICES

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