Human FRAT2 Alexa Fluor® 700-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7980N
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human FRAT2 in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human FRAT2 Ser31-Leu233 (Ala83Thr) Accession # O75474
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% 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.*

Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

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

FRAT2 (Frequently Rearranged in Advanced T-cell lymphomas-2; also GSK-3-binding protein FRAT2) is an intracellular member of the GSK-3-binding protein family. Although its predicted MW is 28 kDa, due to its highly acidic nature, it runs anomalously at 35 kDa in SDS-PAGE. It is widely expressed, and plays a key role in the regulation of the Wnt signaling pathway. Typically, in the absence of stimulation, GSK-3β and β-catenin associate with Axin, where GSK-3β phosphorylates β-catenin, leading to its turnover. Upon Wnt stimulation, GSK-3β phosphorylation of β-catenin is decoupled, resulting in β-catenin mediated gene activation. FRAT2 has the same effect as Wnt stimulation on GSK-3β activity, serving as a non-Wnt activator of β-catenin. It does so by promoting the dissociation of GSK-3β from axin. It also interacts with Diversin, a participant in JNK signaling. This suggests that FRAT2 plays a role in both Wnt/β-catenin and PCP signaling pathways. Human FRAT2 is 233 amino acids (aa) in length. It contains an N-terminal acidic domain (aa 1-54), a Pro-rich segment (aa 60-107) and a GSK-3β binding region (aa 171-196). Over aa 31-233, human FRAT2 shares 73% aa sequence identity with both mouse FRAT2 and human FRAT1.

PRODUCT SPECIFIC NOTICES

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