Human Carboxylesterase 2/CES2 Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 720711

Catalog Number: FAB5657G

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Carboxylesterase 2/CES2 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant mouse Carboxylesterase 2 is observed.
Source	Monoclonal Mouse IgG_1 Clone # 720711
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Carboxylesterase 2/CES2 Gln27-Leu559 (predicted) Accession # O00748
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	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

Carboxylesterase 2 is a member of a serine esterase family composed of enzymes which hydrolyze ester and amide bonds (1, 2). The members in this family share the serine hydrolase fold observed in other esterases (3). They have broad substrate specificity from small molecule esters such as phenylester to long-chain fatty acid esters and thioesters. They play a major role in the pharmacokinetics of most therapeutic agents containing an ester. By de-esterification, they can activate or inactivate the agents. They also participate in the detoxification of drugs such as cocaine and heroin in serum and liver. In addition to narcotics, they can also detoxify organophosphate and carbamate analogues used in agrochemicals or chemical nerve agents, such as malathion, sarin, tabun, and VX. In addition to the hydrolytic activity, they can perform transesterification. This reaction is important for cholesterol homeostasis. Three major human CESs have been identified (4). CES1 is highly expressed in liver. CES2 is present in the small intestine, colon, kidney, liver, heart, brain, and testis. CES3 is brain-specific. Carboxylesterase deficiency may be associated with non-Hodgkin lymphoma or B-cell lymphocytic leukemia.

PRODUCT SPECIFIC NOTICES

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