Human ATM Alexa Fluor® 532-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 664703

Catalog Number: FAB22901X

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ATM in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human ATR is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 664703
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human ATM Arg2138-Arg2400 Accession # Q13315
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 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

ATM (Ataxia Telangiectasia Mutated) is a 350-370 kDa member of the ATM subfamily, PI3/PI4-kinase family of enzymes. It is ubiquitously expressed, and serves as a DNA damage sensor. ATM is activated via autophosphorylation at double strand breaks. Following activation, multiple substrates are phosphorylated, including Chk2, and ATR is recruited and activated as part of an integrated repair circuit. Human ATM is 3056 amino acids (aa) in length. It contains one FAT (focal adhesion targeting) domain (aa 1960-2566), a PI-3/PI-4 kinase catalytic domain (aa 2712-2962) and a second, C-terminal FAT domain (aa 3024-3056). There are at least six Ser and four Thr utilized phosphorylation sites, and one critical acetylation activation site at Lys3016. There are at least four potential splice variants. One shows a Trp substitution for aa 536-3056, a second contains an eight aa substitution for aa 2506-3056, a third possesses a five aa substitution for aa 1637-3056, while a fourth contains a premature truncation after Lys2756. Over aa 2138-2400, human ATM shares 82% aa identity with mouse ATM.

PRODUCT SPECIFIC NOTICES

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