Human ATM Alexa Fluor® 350-conjugated Antibody

Monoclonal Rabbit IgG Clone # 1163B
Catalog Number: FAB22902U
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ATM when phosphorylated at S1981.
Source	Monoclonal Rabbit IgG Clone # 1163B
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Phosphopeptide containing the human ATM S1981 site
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 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.

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 in response to double strand DNA breaks. Activated ATM phosphorylates multiple substrates including Chk2, and it recruits ATR to form 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. Phosphorylation of Ser1981 is important for substrate recognition by ATM. 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 1974-1987, human ATM shares 79% aa identity with mouse ATM.

PRODUCT SPECIFIC NOTICES

Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475