

ATM Protein

Recombinant human protein expressed in Sf9 cells

Catalog # A26-35G

Lot # V2370-8

Product Description

Recombinant human ATM (2667-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. The gene accession number for ATM is [NM_000051](#).

Gene Aliases

AT1, ATA, ATC, ATD, ATE, ATDC, TEL1, MGC74674

Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, and 25% glycerol.

Storage and Stability

Store product at -70°C . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

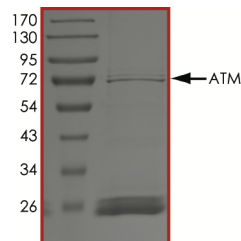
Scientific Background

The Serine/threonine protein kinase ataxia-telangiectasia mutated (ATM) is an atypical kinase of the phosphoinositide 3-kinase (PI3K)-related protein kinase PIKK family, which also includes ATM and Rad3-related protein (ATR), the catalytic subunit of DNA-dependent protein kinase (DNA-PKcs), hSMG1, and mammalian target of rapamycin (mTOR) kinases (1). It plays a prominent role as an apical activator of the DNA damage response under the circumstance of DNA double-strand breaks (DSBs). Following induction of DSBs, ATM mobilizes one of the most extensive signaling networks that responds to specific stimuli and modifies directly or indirectly a broad range of targets (2).

References

1. Lempiäinen H, Halazonetis TD. Emerging common themes in regulation of PIKKs and PI3Ks. *EMBO J.* 2009 Oct 21;28(20):3067-73.
2. Shiloh Y, Ziv Y. The ATM protein kinase: regulating the cellular response to genotoxic stress, and more. *Nat Rev Mol Cell Biol.* 2013 Apr;14(4):197-210.

Purity



The purity of ATM was determined to be **>70%** by densitometry, ATM approx. MW **70kDa**.

ATM Protein

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Lot #	V2370-8
Purity	>70%
Concentration	0.05 µg/µl
Stability	1yr at -70°C from date of shipment
Storage & Shipping	Store product at -70°C . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

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FOR IN VITRO RESEARCH PURPOSES ONLY. NOT INTENDED FOR USE IN HUMAN OR ANIMALS.

MATERIAL SAFETY DATA SHEET

Article 1 - Product Identification and Use

Product Name: ATM Protein

Catalog # A26-35G

This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, agricultural, nor pesticidal applications.

Manufacturer's Name: SignalChem Pharmaceuticals Inc.
Street Address: 110-13120 Vanier Place
City, Prov. Postal Code: Richmond, BC, V6V 2J2
Fax: 604-232-4601
EMERGENCY PHONE: 604-232-4600

Article 2 - Hazardous Ingredients

NOT AVAILABLE. We are not aware of any hazards associated with this product or its ingredients, but the chemical, physical, and toxicological properties of this product have not been investigated thoroughly. Observe normal laboratory precautions.

Article 3 - Physical Data

This product consists of purified protein in Tris-HCl buffer shipped on dry ice. The physical properties of this product have not been investigated thoroughly.

Article 4 - Fire and Explosion Hazard

NOT APPLICABLE

Article 5 - Reactivity Data

NOT APPLICABLE

Article 6 - Toxicologically Data

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Article 7 - Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

*****MULTIPLE COMPONENT SPILL OR LEAK PROCEDURES*****

- Wear protective equipment.
 - Absorb on sand or vermiculite and place in closed containers for disposal.
 - Observe all federal, state and local environmental regulations.
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Article 8 - First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
 - In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
 - If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
 - In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.
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Article 9 - Preparation

Prepared by: Jun Yan

Phone#: 1-866-954-6273

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SignalChem shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalog for additional terms and conditions of sale.

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