

DESCRIPTION

Species Reactivity	Human
Specificity	Detects recombinant human Jarid1A/KDM5a protein in Direct ELISA.
Source	Monoclonal Mouse IgG _{2A} Clone # 1102542
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Jarid1A/KDM5A Lys127-Ser287 Accession # P29375
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and 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

Jarid1A (also known as KDM5A) is a protein of approximately 175kDa that belongs to the Jumonji/ARID1 (JARID) protein family. It functions primarily as a lysine demethylase, involved in the regulation of histone H3 lysine 4 (H3K4) demethylation, thereby playing a crucial role in chromatin remodeling and epigenetic regulation. Jarid1A is implicated in multiple biological processes, including cell cycle progression, differentiation, and development. Dysregulation of Jarid1A is associated with various pathologies, particularly its overexpression in several types of cancer, where it contributes to tumorigenesis, cancer cell proliferation, and metastasis. It is also linked to altered gene expression profiles in neurological disorders. The role of Jarid1A in transcriptional regulation highlights its potential as a therapeutic target and biomarker for cancer and other diseases involving epigenetic dysregulation.

References:

1. Harmeyer KM, Facompre ND, Herlyn M, Basu D. JARID1 Histone Demethylases: Emerging Targets in Cancer. *Trends Cancer*. 2017 Oct;3(10):713-725. doi: 10.1016/j.trecan.2017.08.004. Epub 2017 Sep 12. PMID: 28958389; PMCID: PMC5679451.
2. Yang GJ, Zhu MH, Lu XJ, Liu YJ, Lu JF, Leung CH, Ma DL, Chen J. The emerging role of KDM5A in human cancer. *J Hematol Oncol*. 2021 Feb 17;14(1):30. doi: 10.1186/s13045-021-01041-1. PMID: 33596982; PMCID: PMC7888121.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.