Human Jarid1A/KDM5A Antibody

Monoclonal Mouse IgG_{2A} Clone # 1102542

Catalog Number: MAB11705

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	*E. coli*-derived recombinant human Jarid1A/KDM5A Lys127-Ser287 Accession # P29375
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose.

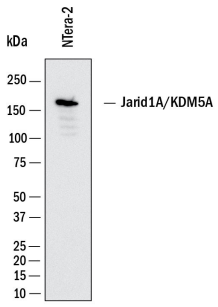
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	2 µg/mL	NTera-2 human testicular embryonic carcinoma cell line
Simple Western	2-10 µg/mL	NTera-2 human testicular embryonic carcinoma cell line

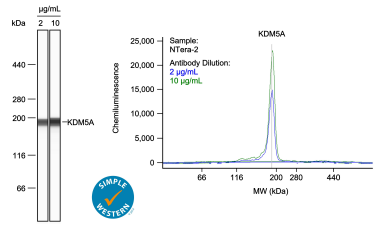
DATA

Western Blot



Detection of Human Jarid1A by Western Blot. Western Blot shows lysates of NTera-2 human testicular embryonic carcinoma cell line. PVDF membrane was probed with 2 µg/ml of Mouse Anti-Human Jarid1A Monoclonal Antibody (Catalog # MAB11705) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Jarid1A at approximately 190 kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.

Simple Western



Detection of Human Jarid1A by Simple Western™. Left: Simple Western lane view shows lysates of NTera-2 human testicular embryonic carcinoma cell line, loaded at 0.75 mg/ml. A specific band was detected for Jarid1A at approximately 191 kDa (as indicated) using both 2 µg/ml and 10 µg/ml of Mouse Anti-Human Jarid1A Monoclonal Antibody (Catalog # MAB11705) followed by HRP-conjugated Goat Anti-Mouse Secondary Antibody (Catalog # 042-205). This experiment was conducted under reducing conditions and using the 66-440kDa separation system. **Right:** Simple Western electropherogram showing the same Mouse Anti-Human Jarid1A Monoclonal Antibody (Catalog # MAB11705) tested at 2 µg/ml (blue line) and 10 µg/ml (green line) in the NTera-2 human testicular embryonic carcinoma cell line.

PREPARATION AND STORAGE

Reconstitution	Reconstitute lyophilized material at 0.2 mg/ml in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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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.

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