

DESCRIPTION

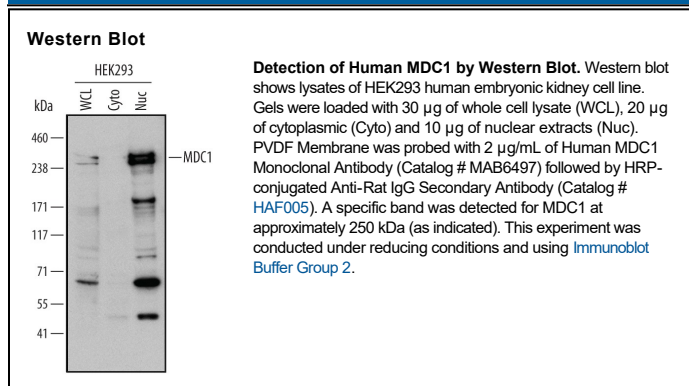
Species Reactivity	Human
Specificity	Detects human MDC1 in Western blots.
Source	Monoclonal Rat IgG _{2A} Clone # 398636
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E.coli</i> -derived recombinant human MDC1 Met1-Glu335 Accession # Q14676
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 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.

BACKGROUND

Mediator of DNA damage checkpoint protein 1 (MDC1), also known as nuclear factor with BRCT domains protein 1 (NFB1), is a 250 kDa nuclear protein that is required to activate the intra-S phase and G2/M phase cell cycle checkpoints in response to DNA damage. Human MDC1 is 2089 amino acids (aa) in length and contains a forkhead-associated motif at its N terminus, two BRCT motifs at its C terminus, and 13 internal repetitions of a 41 aa sequence enriched with serine, threonine, and proline residues. Splicing variants produce five isoforms of MDC1. Human MDC1 shares 49% aa sequence identity with mouse MDC1. MDC1 is highly expressed in testis.