

DESCRIPTION

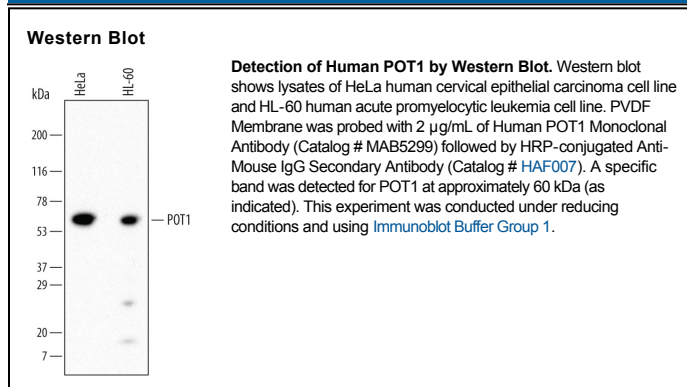
Species Reactivity	Human
Specificity	Detects human POT1 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 688923
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human POT1 Met159-Pro316 Accession # Q9NUX5
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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

POT1 (Protection of telomeres protein 1; also POTE1) is a nuclear, 71 kDa member of the telombin family of proteins. It is ubiquitously expressed, and binds single stranded DNA, TRF2, and TPP1 at the end of chromosomes. This stabilizes chromosome ends and protects against unwarranted activation of DNA damage programs. Human POT1 is 634 amino acids (aa) in length. It contains two N-terminal DNA binding OB regions (aa 1-300) and a C-terminal TPP-1 dimerization domain (aa 301-634). There are multiple isoform variants. There is a potential alternate start site at Met132, plus a three aa substitution for aa 43-634, a 24 aa substitution for aa 317-634, a three aa substitution for aa 457-634, and a 16 aa substitution for aa 503-634. Over aa 159-316, human POT1 shares 71% aa identity with mouse POT1.