

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                 |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human POT1 in direct ELISAs.                                                  |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Mouse IgG <sub>2B</sub> Clone # 688923                                     |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                            |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human POT1<br>Met159-Pro316<br>Accession # Q9NUX5 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm       |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% 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

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## 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.

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