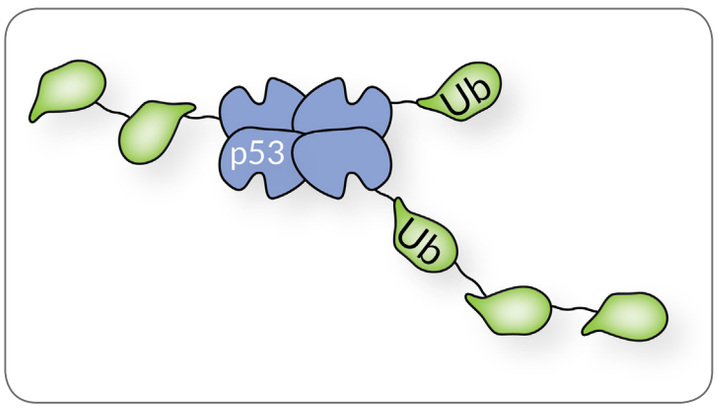
His_6-Ubiquitinated-p53

Cat. No. SBB-US0012
Lot. No. 163060012

South Bay Bío

Ubiquitinated-p53

p53 acts as a tumor suppressor in many tumor types; induces growth arrest or apoptosis depending on the physiological circumstances and cell type. Involved in cell cycle regulation as a trans-activator that acts to negatively regulate cell division by controlling a set of genes required for this process. Prevents CDK7 kinase activity when associated to CAK complex in response to DNA damage, thus stopping cell cycle progression. E3 ligase MDM2 mediated ubiquitin conjugation of p53 and subsequent p53 down-regulation via proteasomal degradation interrupts this crucial role, contributing to tumorogenesis (and cancer). This product consists of an N-terminally tagged His_6-p53 protein expressed in *E.coli* and ubiquitinated by MDM2, and subsequently purified from conjugation-reaction proteins/ enriched post-conjugation. Western blot analysis shows multiple states of poly-ubiquitination, and deconjugation with USP7 shows purified ubiquitinated p53 can function as a native substrate. Best working condition is from 0.5µg to 2µg.



Product Information

Quantity: 20µg **Molecular Weight:** 44 to >150 kDa

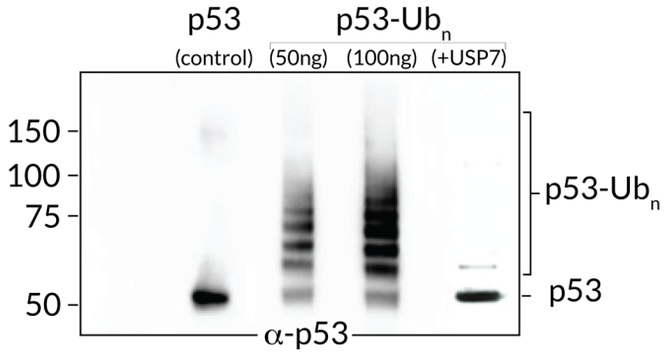
Concentration: 0.2 mg/mL

Purity: >90% by SDS-PAGE

Storage Buffer: 50 mM HEPES pH 7.5, 500 mM NaCl, 10% glycerol, 2mM TCEP.

Storage: -80C, Avoid multiple freeze / thaw

Quality Control and Performance Data



Ubiquitinated-p53 Western Blot. From left to right, Control His_6-p53 (50 ng), ubiquitinated-p53 (50 ng and 100 ng), and ubiquitinated-p53 digested with USP7 (50ng).

References

1) Guo A., Salomoni P., Luo J., Shih A., Zhong S., Gu W., Pandolfi P.P. "The function of PML in p53-dependent apoptosis." Nat. Cell Biol. 2:730-736(2000)

2) Louria-Hayon I., Grossman T., Sionov R.V., Alsheich O., Pandolfi P.P., Haupt Y. "The promyelocytic leukemia protein protects p53 from Mdm2-mediated inhibition and degradation." J. Biol. Chem. 278:33134-33141(2003)

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