

DESCRIPTION

Source *Trichoplusia ni*, *T. ni* (baculovirus)-derived human USP22 protein
Val2 - Glu525 with a N-terminal 6-His tag
Accession # Q9UPT9.2

Predicted Molecular Mass 61 kDa

SPECIFICATIONS

Activity Reaction conditions will need to be optimized for each specific application. We recommend an initial USP22 concentration of 20-100 nM when using Ubiquitin-AMC or Ubiquitin-Rhodamine (Catalog # U-550 or U-555) substrates.

Purity >95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

Formulation Supplied as a solution in HEPES, NaCl, Glycerol and TCEP. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Shipping The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 6 months from date of receipt, -70 °C as supplied.
- 3 months, -70 °C under sterile conditions after opening.

BACKGROUND

Ubiquitin carboxyl-terminal hydrolase 22 (USP22) is a 60 kD specialized Ubiquitin-specific deconjugating cysteine protease. USP22 is a member of the peptidase C19 family (UBP8 subfamily) and the human protein shares 98% amino acid sequence identity with its mouse ortholog. USP22 is a member of the SAGA (Spt-Ada-Gcn5 acetyltransferase) complex, a 2 MDa protein machine that mediates the acetylation and deubiquitination of histones as well as non-histone substrates. Within SAGA, USP22 binds directly with ATXN7L3 and provides the activity required to deubiquitinate mono-Ubiquitinated histone H2B. Recombinant USP22 is not active toward poly-Ubiquitin chains, Ubiquitinated histones and other Ubiquitinated protein substrates in the absence of adapter proteins such as ATXN7L or ENY2. Recent findings suggest USP27X and USP51, which function independently of SAGA, may compete with USP22 for ATXN7L3 and ENY2 binding, and that imbalances in these activities may contribute to human diseases including cancer.

References:

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