

Product Information

Anti-USP7 antibody, Rat monoclonal

clone USP 3D8, purified from hybridoma cell culture

Product Number **SAB4200042**

Product Description

Anti-USP7 (rat IgG2a isotype) is derived from the hybridoma USP 3D8 produced by the fusion of mouse myeloma cells (P3X63 AG 8.653) and splenocytes from rat immunized with a peptide corresponding to a fragment of human USP7 (GeneID: 7874). The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Anti-USP7 recognizes human and rat USP7. The product may be used in several immunochemical techniques including immunoblotting (~130 kDa), immunoprecipitation, and immunocytochemistry.

USP7 (also known as HAUSP; Herpes virus associated ubiquitin specific protease) is a de-ubiquinating enzyme. It was found to specifically bind and de-ubiquitinates p53 and, therefore, to stabilize this key tumour suppressor. In addition, overexpression of USP7 resulted in p53-mediated apoptosis. Interestingly, ablation of USP7 expression resulted in p53 accumulation as opposed to the expected destabilization of p53. This effect has been traced to the ability of USP7 to stabilize mdm2, a ubiquitin ligase that promotes the degradation of p53. Therefore, USP7 appears to play multiple roles in regulating the p53-mdm2 pathway and in maintaining steady-state levels of p53 in the cell.^{1,2} Interestingly, due to its role in p53 regulation, several possible therapeutic strategies of targeting USP7 for treating hematopoietic tumors has been suggested.³

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20 °C. For continuous use, the product may be stored at 2-8 °C for up to one month. For extended storage, freeze in working aliquots at -20 °C. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody concentration of 2-4 µg/mL is recommended using HeLa cell extracts.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

Using a sensitive film is highly recommended.

References

1. Holowaty, M.N., and Frappier, L., *Biochem. Soc. Trans.*, **32**, 731-732 (2004).
2. Krishna, S.S., and Grishin, N.V., *Cell Cycle*, **3**, 1046-1049 (2004).
3. Cheon, K.W., and Baek, K.H., *Int. J. Oncol.*, **28**, 1209-1215 (2006).

RC,VS,GG,TD,KAA,PHC,MAM 04/21-1