

Product Information

Anti- POU1F1/PIT1

produced in rabbit, affinity isolated antibody

Product Number **SAB4200002**

Product Description

Anti-POU1F1/PIT1 is produced in rabbit using as the immunogen a synthetic peptide corresponding to a fragment of human POU1F1/PIT1 (Gene ID: 5449) conjugated to KLH. The corresponding sequence in rat or mouse differs by two and three amino acids, respectively. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-POU1F1/PIT1 recognizes human POU1F1/PIT1. The antibody may be used in various immunochemical techniques including immunoblotting (~32 kDa) and immunoprecipitation. Detection of the POU1F1/PIT1 band by immunoblotting is specifically inhibited with the immunizing peptide.

POU1F1/PIT1 is a pituitary-specific transcription factor responsible for pituitary development and hormone expression in mammals and is a member of the POU family of transcription factors that regulates mammalian development. It is required for the differentiation and proliferation of the anterior pituitary somatotrophs, lactotrophs, and thyrotrophs cell lineages.^{1,2} Therefore, abnormalities of the *Pit-1* gene results in the syndrome of combined pituitary hormone deficiency (CPHD), a disease characterized by the lack of prolactin, growth hormone, and thyroid stimulating hormone beta.^{3,4} POU1F1/PIT1 regulates its target gene expression by binding to response elements on their promoter regions and recruitment of co-regulatory proteins that alter histone acetylation and modify chromatin structures.⁵

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

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. 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 1-2 µg/mL is recommended using GH3 cell lysates.

Immunoprecipitation: a working antibody amount of 2.5-5 µg is recommended using GH3 cell lysates.

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

References

1. Dasen, J.S. et al., *Curr. Opin. Genet. Dev.*, **9**, 566-574 (1999).
2. Dolle, P. et al., *Cell*, **60**, 809-820 (1990).
3. Tatsumi, K. et al., *Nat. Genet.*, **1**, 56-58 (1992).
4. Radovick, S. et al., *Science*, **257**, 1115-1118 (1992).
5. Diamond, S.E. et al., *J. Biol. Chem.*, **275**, 30977-30986 (2000).

VS,SG,TD,KAA,PHC,MAM 04/19-1