



Anti-PRL-3, Rabbit-Polyclonal Antibody

Catalog No. GB-10343 **Quantity:** 250 μ l **Applications tested:** ELISA, Western blot
Antigen species: Human **Reactivity:** Human
Host species: Rabbit **Form:** Antiserum

Target description

PRL-3 is a newly identified metastasis-related gene, which codes a 22 KDa nonclassical protein tyrosine phosphatase with a C-terminal prenylation motif. It is located at the cytoplasmic membrane when prenylated and in the nucleus when nonprenylated. PRL-3 has at least 75% amino-acid sequence similarity with PRL-1 and PRL-2, the other two members of the PRL family. Recently, Zeng and colleagues found that Chinese hamster ovary cells stably expressing PRL-3 exhibited enhanced motility, invasive activity, and induced metastatic tumor formation in nude mice. And in clinical study, PRL-3 is consistently overexpressed in liver metastasis in colorectal cancer cells. These findings may provide PRL-3 is a new target for the early diagnosis of metastasis as well as the drug discovery.

Antigen

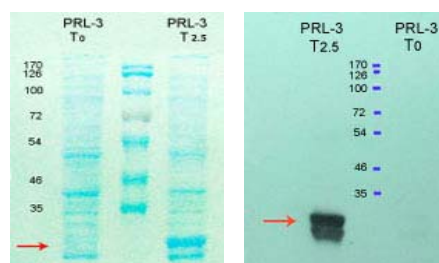
This polyclonal antibody was raised by immunizing rabbit with a recombinant Human PRL-3 protein.

Application

The antibody specificity was assayed by ELISA with the synthetic Human PRL-3 peptide antigen and by Western Blot analysis (WB) with recombinant human PRL-3. The antibody titer is more than 100,000 for ELISA, and more than 5,000 for WB. It has not been tested in the other applications. However, for the first testing, we recommend 1/10,000 dilution for ELISA, 1/5,000 dilution for Western blot analysis (WB) of recombinant protein, 1/4,000 dilution for tissue extracts or cell lysates, 1/100 dilution for immunohistochemistry (IHC) staining on frozen cryosections, 1/50 dilution for IHC staining on paraffin embedded sections.

Related Products

1. Anti-MMP2 pAb (GB-10342).
2. Anti-BMP17 pAb (GB-10001)
3. Anti-MMP17 pAb (GB-10042).
4. Anti-MMP1 pAb (PY-10174).
5. Anti-MMP12(a.a.35-117) pAb (PY-10169).



T₀ : before IPTG induction of the protein expression
T_{2.5} : IPTG induction of the recombinant protein expression for 2.5 hours. Human PRL-3 (PRL-3, 23.9 kDa)

5000X dilution of the first antibody: rabbit anti-PRL-3 polyclonal antibody (serum).
X-ray film exposed 5 seconds with the ECL kit.

Western Blot Protocol

1. Block with 3%BSA/TBST for 1 hour at RT.
2. Wash blot with 0.05% TBST 3 X 15 minutes.
3. Add 5000X dilution of PRL-3 polyclonal antibody.
4. Incubate for 1 hour at RT.
5. Wash blot with 0.05% TBST 3 X 15 minutes.
6. Add appropriate amount of correct secondary antibody, goat anti-rabbit antibody conjugated with HRP). Incubate for 1 hour at RT.
7. Wash blot 3 X 15 minutes with 0.05% TBST at RT.
8. Add HRP substrate and develop

Storage

It is supplied as lyophilized serum. Redissolve the lyophilized powder with 250 microliter sterile water will restore the original condition. Store at 4°C for short term application. For long-term storage, aliquot and store at -20°C.

References

1. Zeng Q, Hong W, Tan YH. Mouse PRL-2 and PRL-3, two potentially prenylated protein tyrosine phosphatases homologous to PRL-1. *Biochem Biophys Res Commun*. 1998 Mar 17;244(2):421-7.
2. Qi Zeng, Jing-Ming Dong, Ke Guo, Jie Li, Hui-Xian Tan, Vicki Koh, Catherine J. Pallen, Edward Manser, and Wanjin Hong. PRL-3 and PRL-1 Promote Cell Migration, Invasion, and Metastasis. *Cancer Reseach*. 63, 2716–2722 (2003).

3. Xiaopeng Wu, Hu Zeng, Xianming Zhang, Ying Zhao, Haibo Sha, Xiaomei Ge, Minyue Zhang, Xiang Gao, and Qiang Xu. Phosphatase of Regenerating Liver-3 Promotes Motility and Metastasis of Mouse Melanoma Cells. American Journal of Pathology, Vol. 164, No. 6, June 2004.
4. Peng L, Ning J, Meng L, Shou C. The association of the expression level of protein tyrosine phosphatase PRL-3 protein with liver metastasis and prognosis of patients with colorectal cancer. J Cancer Res Clin Oncol. 2004 May 6. [Epub ahead of print]

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