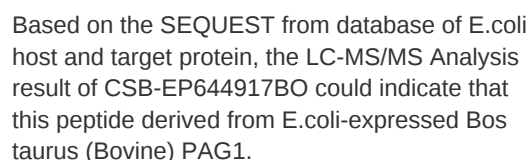
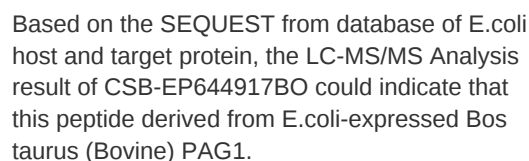




Recombinant Bovine Pregnancy-associated glycoprotein 1

Product Code	CSB-EP644917BO
Relevance	Appears to be proteolytically inactive.
Abbreviation	Recombinant Bovine Pregnancy-associated glycoprotein 1
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q29432
Alias	Pregnancy-specific protein B Short name: PSP-B
Product Type	Recombinant Protein
Immunogen Species	Bos taurus (Bovine)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	RGSNLTTHPLRNIKDLVYMGNITIGTPPQEFQVVFDTASSDLWVP SDFCTSPAC STHVRFRHLQSSTFRLTNKTFRITYGSGRMKGVVVHDTV RIGNLVSTDQPFGL SIEEYGFEGRIYDGV LGLNYPNISFSGAIPFDKLKNQRAISEPVFAFYLSKDERE GSVVMFGGVDHRY YEGELNWWPLIQAGDWSVHMDRISIERKIIACSDGCKALV DTGTSDIVGPRRLVNNIHR LIGAIPRGSEHYVPCSEVNTLPSIVFTINGINYPVPG RAYILKDDRGRCYTTTFQENRVSSSTETWYLGDVFLRLYFSVFDRGNDRIGLAR AV
Research Area	others
Source	E.coli
Protein Names	Recommended name: Pregnancy-associated glycoprotein 1 Short name= PAG 1 EC= 3.4.23.-Alternative name(s): Pregnancy-specific protein B Short name= PSP-B
Expression Region	54-380aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	40.7kDa
Protein Length	Full Length of Mature Protein
Image	



The detection and quantification of PAG1 play a crucial role in reproductive management in cattle. Studies have compared methods such as ultrasonography, ELISA, and radioimmunoassays for pregnancy diagnosis, emphasizing the importance of PAG1 testing in dairy cows [5][8]. Furthermore, research has explored the potential of using PAG1 levels to monitor induced abortions and hormonal profiles in heifers [9].



References:

- [1] Z. Perényi, O. Szenci, J. Sulon, P. Drion, & J. Beckers, Comparison of the ability of three radioimmunoassay to detect pregnancy-associated glycoproteins in bovine plasma, *Reproduction in Domestic Animals*, vol. 37, no. 2, p. 100-104, 2002. <https://doi.org/10.1046/j.1439-0531.2002.00341.x>
- [2] K. Klisch, N. Sousa, J. Beckers, R. Leiser, & A. Pich, Pregnancy associated glycoprotein 1, 6, 7, and 17 are major products of bovine binucleate trophoblast giant cells at midpregnancy, *Molecular Reproduction and Development*, vol. 71, no. 4, p. 453-460, 2005. <https://doi.org/10.1002/mrd.20296>
- [3] A. Zoli, L. Guilbault, P. Delahaut, W. Ortiz, & J. Beckers, Radioimmunoassay of a bovine pregnancy-associated glycoprotein in serum: its application for pregnancy diagnosis, *Biology of Reproduction*, vol. 46, no. 1, p. 83-92, 1992. <https://doi.org/10.1095/biolreprod46.1.83>
- [4] M. Friedrich and W. Holtz, Establishment of an elisa for measuring bovine pregnancy-associated glycoprotein in serum or milk and its application for early pregnancy detection, *Reproduction in Domestic Animals*, vol. 45, no. 1, p. 142-146, 2010. <https://doi.org/10.1111/j.1439-0531.2008.01287.x>
- [5] O. Szenci, J. Beckers, P. Humblot, J. Sulon, G. Sasser, M. Taverne et al., Comparison of ultrasonography, bovine pregnancy-specific protein b, and bovine pregnancy-associated glycoprotein 1 tests for pregnancy detection in dairy cows, *Theriogenology*, vol. 50, no. 1, p. 77-88, 1998. [https://doi.org/10.1016/s0093-691x\(98\)00115-0](https://doi.org/10.1016/s0093-691x(98)00115-0)
- [6] O. Patel, J. Sulon, J. Beckers, T. Takahashi, M. Hirako, N. Sasaki et al., Plasma bovine pregnancy-associated glycoprotein concentrations throughout gestation in relationship to fetal number in the cow, *Acta Endocrinologica*, p. 423-428, 1997. <https://doi.org/10.1530/eje.0.1370423>
- [7] I. García-Ispuerto, S. Almer, B. Serrano, N. Sousa, J. Beckers, & F. López-Gatius, Plasma concentrations of pregnancy-associated glycoproteins measured using anti-bovine PAG 2 antibodies on day 120 of gestation predict abortion in dairy cows naturally infected with neospora caninum, *Reproduction in Domestic Animals*, vol. 48, no. 4, p. 613-618, 2012. <https://doi.org/10.1111/rda.12134>
- [8] O. Patel, K. Kizaki, T. Takahashi, K. Imai, & K. Hashizume, Quantitative analysis throughout pregnancy of placental and interplacental expression of pregnancy-associated glycoproteins 1 and 9 in the cow, *Molecular Reproduction and Development*, vol. 67, no. 3, p. 257-263, 2004. <https://doi.org/10.1002/mrd.20017>
- [9] F. Lobago, H. Gustafsson, M. Bekana, J. Beckers, & H. Kindahl, Clinical features and hormonal profiles of cloprostenol-induced early abortions in heifers monitored by ultrasonography, *Acta Veterinaria Scandinavica*, vol. 48, no. 1, 2006. <https://doi.org/10.1186/1751-0147-48-23>
- [10] T. Lestari, Study of the anti – pregnancy - associated glycoprotein (anti – PAG) resulted from antigen PAG immunization, as prospective early pregnancy detector in animals, *Cercetari Agronomice in Moldova*, vol. 49, no. 3, p. 111-118, 2016. <https://doi.org/10.1515/cerce-2016-0030>

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a



concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.