

AR60006PU-N

Recombinant Bovine SRY / TDF - Purified

Alternate names:

Sex-determining region Y protein, Testis-determining factor

Quantity:

10 µg

Background:

The „Sex determining region of Y-Gen“ (SRY), known as SRY gene, is coding for a transkription factor (TDF for Testis-determining factor). It belongs to the protein family of DNA binding-proteins. The SRY gene is beside other genes used for the determination of the sex in human as well as other mammals. Most mammals have for this purpose a further gene, UBE1. In humans SRY is normally located on the short arm of the Y chromosome. Accordingly, people who possess this chromosome with the corresponding gene, normally have a male phenotype. It does not matter how many copies of the X chromosome are present, even people with a multiple X chromosome (Klinefelter's syndrome) have this. The protein encoded by the gene Testis-determining factor controls the development of male sex.

Uniprot ID:

[Q03255](#)

NCBI:

[NP_001014407.1](#)

GenelD:

[280931](#)

Species:

Bovine

Source:

E. coli

Format:

State: Lyophilized protein

Purity: >90% by SDS-PAGE and Silver staining

Buffer System: ddH2O

Stabilizers: None

Reconstitution: Restore in PBS to a concentration of 0.1 mg/ml.

Description:

Recombinant bovine SRY / TDF

Result by N-terminal sequencing: MFRVLN

AA Sequence:

MFRVLNDDVYSPAVVQQQTTLAFRKDSSLCTDSHSANDQCERGEHVRESSQDHVKRPMNAFIVWSRERRRKV
ALENP
KMKNSDISKQLGYEWKRLTDAEKRPFFEEAQRLLAHRDKYPGYKYPRAKRPQKSLPADSSILCNPMHVE
TLHPF
TYRDGCAKTTYSQMESQLSRQSIVIITNSLLQKEHHSSWTS LGHNKVTLATRISADFCNKSLEPGLSCAYF
QYLE

Molecular weight: 26.8 kDa (231 amino acids)

Add. Information:

mRNA RefSeq: NM_001014385.1

Storage:

Prior to reconstitution store desiccated at 2-8°C.

Following reconstitution store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. For long term storage it is recommended to add a carrier protein (0.1% HAS or BSA).

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

1. Harikae K, Tsunekawa N, Hiramatsu R, Toda S, Kurohmaru M, Kanai Y. Evidence for almost complete sex-reversal in bovine freemartin gonads: formation of seminiferous tubule-like structures and transdifferentiation into typical testicular cell types. *J Reprod Dev.* 2012;58(6):654-60. Epub 2012 Jul 20. PubMed PMID: 22813600.
2. Hamilton CK, Combe A, Caudle J, Ashkar FA, Macaulay AD, Blondin P, et al. A novel approach to sexing bovine blastocysts using male-specific gene expression. *Theriogenology.* 2012 May;77(8):1587-96. doi: 10.1016/j.theriogenology.2011.11.027. Epub 2012 Feb 14. PubMed PMID: 22341705.
3. Gou X, Wang Y, Yang S, Deng W, Mao H. Genetic diversity and origin of Gayal and cattle in Yunnan revealed by mtDNA control region and SRY gene sequence variation. *J Anim Breed Genet.* 2010 Apr;127(2):154-60. doi: 10.1111/j.1439-0388.2009.00807.x. PubMed PMID: 20433524.
4. Ross DG, Bowles J, Koopman P, Lehnert S. New insights into SRY regulation through identification of 5' conserved sequences. *BMC Mol Biol.* 2008 Oct 14;9:85. doi: 10.1186/1471-2199-9-85. PubMed PMID: 18851760.
5. Lu W, Rawlings N, Zhao J, Wang H. Amplification and application of the HMG box of bovine SRY gene for sex determination. *Anim Reprod Sci.* 2007 Jul;100(1-2):186-91. Epub 2006 Aug 26. PubMed PMID: 17005338.

Pictures:

SDS-PAGE analysis of recombinant bovine SRY/TDF Cat.-No. AR60006PU-N. Sample was loaded in 15% SDS-polyacrylamide gel under reducing condition and stained with Coomassie blue.

