Technical Data Sheet

Recombinant Soluble Human Fas (FasΔTM)

Product Information

554336 **Material Number:** $10 \mu g$

Storage Buffer: Aqueous buffered solution containing BSA and glycerol.

Description

Fas (APO-1, CD95) is an ~42 kDa cell surface protein that mediates apoptosis when cross-linked with agonistic anti-Fas antibodies or Fas ligand (FasL). Fas belongs to the TNF (tumor necrosis factor)/NGF (nerve growth factor) receptor family, and is expressed in various tissue and cells including the thymus, liver, ovary and lung. FasL is a 40 kDa TNF family member membrane protein that induces apoptosis by binding to Fas, its cell-surface receptor. FasL is expressed on activated T and NK cells. Both Fas and FasL are thought to play an important role in the apoptotic processes that take place during T cell development.

Recombinant soluble human Fas was expressed in the Baculovirus Expression Vector System and purified from insect cell lysate using an anti-Fas antibody. This form of Fas lacks the transmembrane domain of the Fas receptor, and has been referred to as FasΔTM. It has a 63-base pair deletion starting at nucleotide sequence (700) GA TCC AGA and ending at nucleotide sequence GTT TGG G (762). The purity and the integrity of the protein were verified by SDS-PAGE, and ELISA. FasΔTM has a reduced molecular weight of ~40 kDa.

Preparation and Storage

Avoid multiple freeze-thaws of product.

Store the protein at -20°C, or for longer storage life, at -80°C.

Application Notes

Application

Western blot	Routinely Tested
ELISA Standard	Tested During Development
Functional assay	Not Recommended

Recommended Assay Procedure:

Purified FasΔTM can be used as a positive control for western blot analysis of Fas. 1 μg of protein can easily be visualized on a Commasie-stained gel as a band of ~40 kDa. For western blot analysis, 1 µg or less is sufficient depending on the detection method (less is needed for enhanced chemiluminescence than for standard alkaline phosphatase detection). Purified FasΔTM can also be used as a standard in Fas ELISA assays. The recombinant FasΔTM protein should not be used in functional assays, as it does not appear to assume a biologically active conformation.

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols. 2.
- Licensed for Research Purposes Only. Commercial use requires license from Boyce Thompson Institute for Plant Research.
- Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Cheng J, Zhou T, Liu C, et al. Protection from Fas-mediated apoptosis by a soluble form of the Fas molecule. Science. 1994; 263(5154):1759-1762.(Biology) Takahashi T, Tanaka M, Brannan CI, Jenkins NA, Copeland NG, Suda T, and Nagata S. Generalized lymphoproliferative disease in mice, caused by a point mutation in the Fas ligand. Cell. 1994; 76(6):969-976.(Biology)

Tanaka M, Suda T, Takahashi T, and Nagata S. Expression of the functional soluble form of human Fas ligand in activated lymphocytes. EMBO J. 1995; 14(6):1129-1135.(Biology)

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