

Product Information



CD95 (human) cDNA Probe

Catalog No. 660616

Synonyms:	Apo-1, Fas (human)
Contents:	Each vial contains 2 µg lyophilized DNA
Probe form:	Double-stranded cDNA fragment [coding region]
Ends:	5' overhang
Size:	~1.2 kbp
Purity:	Gel purified
Stability:	≥2 years at -20°C

This probe is used for the detection of human Fas mRNA. Fas is a member of the family of cell surface receptors possessing a death domain. Binding of ligand to Fas results in a cascade of events culminating in apoptosis.¹ Northern blot analysis reveals two transcripts for Fas mRNA, 1.9 kb and 2.7 kb in length, which are likely the result of alternative splicing.² Treatment of HT-29 cells with IFN γ , or thymocytes with IL-1 β induces the expression of Fas.^{2,3} This cDNA probe is 55% and 47% homologous to the corresponding murine and rat sequences, respectively. The homology between the human and mouse/rat Fas sequences is given in the table below.

	Homology to murine Fas	Homology to rat Fas
probe	55%	47%
full length cDNA	57%	49%

Laboratory Procedures

Each vial contains 2 µg of an isolated double-stranded cDNA fragment in a lyophilized form. This cDNA probe is derived from the coding region of the human Fas gene and has a length of approximately 1.2 kbp located within the region between -700-1900.¹

The probe may be labeled by radioactive^{3,4} or nonradioactive^{5,6} compounds using random primer labeling³⁻⁵ or nick translation.^{4,6} For best results, reconstitute the probe just prior to use with either water or TE buffer (Cat. No. 660932). If the reconstituted probe cannot be used within two weeks, it should be aliquoted into smaller vials and stored at -20°C. For Northern and Southern blot techniques, we recommend following the procedures described in molecular biology manuals such as *Current Protocols in Molecular Biology* or *Molecular Cloning: A Laboratory Manual*.

References

1. Gamen, S., Anel, A., Piñeiro, A., *et al.* Caspases are the main executioners of Fas-mediated apoptosis, irrespective of the ceramide signalling pathway. *Cell Death and Differentiation* **5**, 241-249 (1998).
2. Itoh, N., Yonehara, S., Ishii, A., *et al.* The polypeptide encoded by the cDNA for human cell surface antigen Fas can mediate apoptosis. *Cell* **66**, 233-243 (1991).
3. Feinburg, A.P. and Vogelstein, B. A technique for radiolabelling DNA restriction endonuclease fragments to high specific activity. *Anal. Biochem.* **132**, 6-10 (1983).
4. Koch, J., Kolvrax, S., and Bolund, L. An improved method for labeling of DNA probes by nick translation. *Nucleic Acid Res.* **14**, 7132 (1986).
5. Kessler, C., Hölzke, H., Seibl, R., *et al.* Non-radioactive labeling and detection of nucleic acids. A novel DNA labeling and detection system based on digoxigenin: Anti-digoxigenin ELISA principle (Digoxigenin system). *Biol. Chem. Hoppe-Seyler* **371**, 916-927
6. Seibl, R., Hölzke, H., Rüger, R., *et al.* Non-radioactive labeling and detection of nucleic acids III. Applications of the digoxigenin system. *Biol. Chem. Hoppe-Seyler* **371**, 939-951 (1990).

Related Product

Fas Ligand (human) cDNA Probe - Cat. No. 660615

WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSD supervisor at your institution.

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