

Data sheet Recombinant rat interferon alpha₁ (IFN- α_1)

Cat. No.:	CT048
Production:	By <i>Spodoptera frugiperda</i> insect cells (Sf9) transfected with a recombinant baculovirus harbouring the chromosomal gene encoding a structural gene for a rat IFN- α subtype. The cytokine is produced by these cells in serum-free medium.
Purification:	By chromatographic procedures.
Purity:	Partially purified.
Endotoxin:	< 0.1 EU/ μ g protein
Packaging:	Lyophilized and vacuum-packed.
Contents:	1 x 10 ⁵ units/vial (= 1 μ g/vial) (the exact amount is indicated on the vial)
Buffer:	Prior to lyophilization: 0.15 ml citric acid buffered saline (CBS pH 5.0) + 125 mM trehalose.
Specificity:	Exhibits a high degree of species specificity as its antiviral bioactivity on mouse cells is approximately 6% and on human cells less than 0.1% of the homologous bioactivity.
Specific activity:	10 ⁸ units/mg protein. The bioactivity is dependent on the presence of a reducing agent in the culture medium (2 mM glutathione is recommended).
Unit:	One unit is defined as the amount of interferon that inhibits 50% of the cytopathic effect of Vesicular stomatitis virus in monolayer cultures of R4 cells grown in the wells of a 96-well microtiter plate. The unit is subsequently corrected by reference to a laboratory standard preparation.
Sterility:	Membrane filtered (0.2 μ m).
Reconstitution:	Dissolve the contents of the vial by injection of 150 μ l sterile distilled water.
Stability:	Lyophilized product is stable for a defined length of time at -20°C (expiry date indicated on vial). After reconstitution, the contents can be best divided into small aliquots for single use and stored at -80°C. After thawing, the cytokine is stable for at least four weeks at 4°C
Quantitation:	Protein concentration was deduced from the biological activity in an antiviral bioassay.
References:	Dijkema, R. <i>et al.</i> 1984. Nucl. Acids Res. 12: 1227-1242 Stadler, K. <i>et al.</i> 2014. Cereb. Cortex 24: 199-210 Van der Meide, P.H. <i>et al.</i> 1986. Meth. Enzymol. 119: 441-453

