Open Peer Review on Qeios

Tagraxofusp-erzs

National Cancer Institute

Source

National Cancer Institute. <u>Tagraxofusp-erzs</u>. NCI Thesaurus. Code C64769.

A recombinant protein consisting of human interleukin 3 (IL3) fused to the first 388 amino acids of diphtheria toxin [DT (388)] (DT 388IL3) with potential antineoplastic activity. Upon intravenous administration of tagraxofusp-erzs, the IL3 moiety binds to IL3 receptors on cells expressing the receptor. Subsequently, the DT (388) toxin moiety, which contains both translocation and catalytic domains, is transported across the cell membrane via endocytosis. Within the cytosol, the catalytic domain of the toxin both catalyzes the ADP-ribosylation of, and inactivates, translation elongation factor 2 (EF-2), which results in the inhibition of translation during protein synthesis. IL3 may be overexpressed by a variety of cancers, including blastic plasmacytoid dendritic cell neoplasm and acute myeloid leukemia (AML).