### Alpha-interferon


**Brand name:** Intron®
**Brand name:** Roferon®-A
**Brand name:** Sylatron®
**FDA approval:** Yes

**Manufacturer Link**

**Usage:**

Alpha-interferon is usually given in a two-step process. During the first step (induction), the drug is given in a vein (intravenously). In the second step, the drug is given by injections under the skin, usually in the abdomen or thigh. Alpha-interferon is used to treat kidney (renal) tumors, melanoma, multiple myeloma, carcinoid tumors and some types of lymphoma and leukemia.

Alpha-interferon is also used to treat hepatitis infections (Rebetron®, Rebetol®). A new version of alpha-interferon (Sylatron®) was approved in 2011 for the treatment of melanoma. This new form allows the drug to last for a longer period of time in the body.

**Mechanism:**

Alpha-interferon is a naturally occurring protein that is found in the body in small amounts. Use of Alpha-interferon treatments lead to inhibition of tumor cell protein production, which also helps by prolonging the cell cycle and modulating oncogene expression. Despite this, the exact mechanism of anti-tumor action remains unknown.  

**Alpha Interferon**

The above diagram shows the 3D conformer of parent compound Prochloraz.


**Side effects:**

Side effects of Alpha-interferon can often be somewhat severe, as flu-like symptoms (fever, chills, body weakness) occur in 80-90% of patients. However, these issues typically occur only right after a treatment and decrease with subsequent treatments. Other side effects can include: fatigue, confusion, depression (especially in the elderly) and skin issues.

**Contraindications:**

Interferon can worsen existing heart, kidney, liver, and mental health problems.