

10 June 2010 EMA/COMP/164768/2010 Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Recombinant human anti-interferon gamma monoclonal antibody for the treatment of haemophagocytic lymphohistiocytosis

On 9 June 2010, orphan designation (EU/3/10/749) was granted by the European Commission to NovImmune B.V., the Netherlands, for recombinant human anti-interferon gamma monoclonal antibody for the treatment of haemophagocytic lymphohistiocytosis.

What is haemophagocytic lymphohistiocytosis?

Haemophagocytic lymphohistiocytosis (HLH) is a disease in which the body produces too many histiocytes and lymphocytes (cells of the immune system), which accumulate in the body's tissues and organs, including the liver, spleen, bone marrow, brain and skin. This causes the symptoms of the disease, such as fever, an enlarged liver and spleen, skin rash, jaundice (yellowing of the skin and eyes) and pancytopenia (low blood cell counts).

HLH is a debilitating and life-threatening disease that is associated with poor long-term survival.

What is the estimated number of patients affected by the condition?

At the time of designation, HLH affected less than 0.1 in 10,000 people in the European Union (EU)*. This is equivalent to a total of fewer than 5,000 people, and is below the threshold for orphan designation, which is 5 people in 10,000. This is based on the information provided by the sponsor and the knowledge of the Committee for Orphan Medicinal Products (COMP).

What treatments are available?

At the time of designation, no satisfactory methods were authorised in the EU for the treatment of HLH. Patients were treated with immunosuppressant medicines (medicines that reduce the activity of the immune system) and chemotherapy (medicines to treat cancer). In some cases, bone marrow transplantation has cured the disease. This is a complex procedure where the bone marrow of the patient is destroyed and replaced with healthy bone marrow from a matched donor.

^{*}Disclaimer: For the purpose of the designation, the number of patients affected by the condition is estimated and assessed on the basis of data from the European Union (EU 27), Norway, Iceland and Liechtenstein. This represents a population of 506,500,000 (Eurostat 2010).



How is this medicine expected to work?

Recombinant human anti-interferon gamma monoclonal antibody is a monoclonal antibody (a type of protein) that has been designed to recognise and attach to a substance called interferon gamma. Patients with HLH have high levels of interferon gamma, which is thought to be responsible for the accumulation of the immune cells causing the disease. By attaching to interferon gamma, this medicine is expected to block its activity, improving the symptoms of HLH.

What is the stage of development of this medicine?

The effects of recombinant human anti-interferon gamma monoclonal antibody have been evaluated in experimental models.

At the time of submission of the application for orphan designation, no clinical trials with recombinant human anti-interferon gamma monoclonal antibody in patients with HLH had been started.

At the time of submission, recombinant human anti-interferon gamma monoclonal antibody was not authorised anywhere in the EU for HLH or designated as an orphan medicinal product elsewhere for this condition.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 3 March 2010 recommending the granting of this designation.

Opinions on orphan medicinal product designations are based on the following three criteria:

- the seriousness of the condition;
- · the existence of alternative methods of diagnosis, prevention or treatment;
- either the rarity of the condition (affecting not more than 5 in 10,000 people in the EU) or insufficient returns on investment.

Designated orphan medicinal products are products that are still under investigation and are considered for orphan designation on the basis of potential activity. An orphan designation is not a marketing authorisation. As a consequence, demonstration of quality, safety and efficacy is necessary before a product can be granted a marketing authorisation.

For more information

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Translations of the active ingredient and indication in all official EU languages¹, Norwegian and Icelandic

| Language | Active Ingredient | Indication |
|------------|---|--|
| English | Recombinant human anti-interferon | Treatment of haemophagocytic |
| | gamma monoclonal antibody | lymphohistiocytosis |
| Bulgarian | Рекомбинантно човешко моноклонално | Лечение на хемофагоцитна |
| | антитяло срещу интерферон гама | лимфохистиоцитоза. |
| Czech | Rekombinantní monoklonální protilátka proti lidskému interferonu gama | Léčba hemofagocytové lymfohistiocytózy |
| Danish | Recombinant humant monoklonalt anti- interferon gamma antistof | Behandling af hæmofagocytisk lymfohistiocytose |
| Dutch | Recombinant humaan anti-interferon- gamma monoclonaal antilichaam | Behandeling van hemofagocytaire lymfohistiocytose |
| Estonian | Rekombinantne inimese anti-interferoon gamma monoklonaalne antikeha | Hemofagotsütaarse lümfohistiotsütoosi ravi |
| Finnish | Rekombinanttitekniikalla tehty ihmisen monoklonaalinen anti- gammainterferonivasta-aine | Hemofagosyyttisen lymfohistiosytoosin hoito |
| French | Anticorps monoclonal humain recombinant dirigé contre l'interféron gamma | Traitement de la lymphohistiocytose hémophagocytaire |
| German | Rekombinanter humaner monoklonaler Antikörper gegen Interferon gamma | Behandlung der hämophagozytäre lymphohistiozytose |
| Greek | Ανασυνδυασμένο ανθρώπινο μονοκλωνικό | Θεραπεία της αιμοφαγοκυτταρικής |
| | αντίσωμα έναντι της ιντερφερόνης γάμμα | λεμφοϋστιοκυττάρωσης. |
| Hungarian | Rekombináns humán anti-interferon gamma monoklonális antitest | Haemophagocytás lymphohistiocytosis kezelése |
| Italian | Anticorpo monoclonale umano ricombinante anti-interferon gamma | Trattamento della linfoistiocitosi emofagocitica |
| Latvian | Rekombinēta cilvēka monoklonāla antiviela pret gamma interferonu | Hemofagocītiskas limfohistiocitozes ārstēšana |
| Lithuanian | Rekombinantinis žmogaus anti – interferono gama monokloninis antikūnas | Hemofagocitinės limfohistiocitozės gydymas |
| Maltese | Antikorp monoklonali uman rikombinanti kontra l-interferon gamma | Kura ta' limfoistjoċitosi emofagoċitika |
| Polish | Rekombinowane ludzkie przeciwciało monoklonalne przeciwko interferonowi gamma | Leczenie lymfohistiocytozy z erytrofagocytozą (HLH) |
| Portuguese | Anticorpo monoclonal recombinante humano anti- interferão gama | Tratamento de linfohistiocitose hemofagocítica |
| Romanian | Anticorp monoclonal uman recombinant anti-interferon gama | Tratamentul limfohistiocitozei hemofagocitice |
| Slovak | Rekombinantná ľudská monoklonálna protilátka proti interferónu gama | Liečba hemofagocytárnej lymfohistiocytózy |

¹ At the time of designation

| Language | Active Ingredient | Indication |
|-----------|---|---|
| Slovenian | Rekombinantno humano monoklonsko protitelo proti interferonu gama | Zdravljenje hemofagocitne limfohistiocitoze |
| Spanish | Anticuerpo monoclonal humano recombinante anti interferón gamma | Tratamiento de la linfohistiocitosis hemofagocítica |
| Swedish | Rekombinant human monoklonal antikropp mot interferon-gamma | Behandling av hemofagocyterande lymfohistiocytos |
| Norwegian | Rekombinant humant monoklonalt antistoff mot interferon gamma | Behandling av hemofagocytisk lymfohistiocytose |
| Icelandic | Raðbrigða anti-interferón gamma einstofna mótefni | Meðferð við eitil- og traffrumnageri með rauðkornaáti |