This is a provisional English translation of an excerpt from the original full report.

Risk Assessment Report

Pegbovigrastim

(Veterinary Medicinal Products)

Food Safety Commission of Japan (FSCJ)
November 2016

ABSTRACT

FSCJ conducted a risk assessment of pegbovigrastim (PEGylated Bovine Granulocyte Colony Stimulating Factor) (CAS No. 1363409-60-2), a immunomodulator, based on documents submitted by the applicant for the import tolerance and the evaluation documents of the European Medical Agency (EMEA) (EPMAR).

Pharmacodynamics and pharmokinetic studies indicated that the bioavailability of oral treatment with pegbovigrastim was negligible compared to that via a subcutaneous injection. In the validated Electrochemiliminescent (ECL) Immunoassay of pegbovigrastimin rats, the relative bioavailability was less than 0.08% assuming that all values are the limit of quantification,. Rats and cows subcutaneous treatment with pegbovigrastim in rats and cows increased neutrophil counts in pharmodynamics study showed, however significant increase in neutrophil counts were not observed in animals orally treated with pegbovigrastim

Toxicological studies of pegbovigrastim have not been conducted. However, filgrastim (pegulated human G-CSF) gave all negative results in genotoxicity studies. FSCJ considered that pegbovigrastim is degraded in gastrointestinal tract and that has low bioavailability. Therefore, FSCJ concluded that pegbovigrastim has no genotoxicity relevant to human health..

No residues studies of pegbovigrastim has been conducted. Both subacute toxicity and reproductive toxicity studies of filgrastim were not conducted via oral route. Simulated gastric fluid in pegbovigrastim drug degradation studies indicated that pegbovigrastim was ingested and degraded within 30 minutes in simulated gastric fluid. The results suggests that pegbovigrastim is quickly degraded in the stomach of humans when humans intake pegbovigrastim in food. On the basis of the data described above, adverse effect of pegbovigrastim on human health is negligle through food. FSCJ considered that the data on toxicity and pharmacology are unnecessary for the present evaluation of pegbovigrastim.

Hence, FSCJ judged it unnecessary to establish an acceptable daily intake (ADI) for pegbovigrastim.