GM6001 also known as galardin or ilomastat is a broad-spectrum matrix metalloproteinase inhibitor.

GM6001 is a member of the hydroxamic acid class of reversible metallopeptidase inhibitors. The anionic state of the hydroxamic acid group forms a bidentate complex with the active site zinc.

Examples of enzymes that ilomastat inhibit include thermolysin, peptide deformylase, and anthrax lethal factor endopeptidase (LF) produced by the bacterium Bacillus anthracis.

Results showed that MMP inhibitor (MMPI), Ilomastat, induced glioma cells to have an amoeboid-like morphology with invasive ability. Moreover, the RhoA/Rho kinase (ROCK)/myosin light chain (MLC) signal is involved in the MMPI-induced movement mode switch, and RhoA activation is dependent on P115RhoGEF. Importantly, combined inhibition of MMPs and ROCK enhanced the inhibition invasion function of MMPI and increased survival time in vitro and in vivo. The results suggested that glioma cells with MMPI treatment were able to compensate for the loss of invasive proteolysis-dependent migration capacity by acquiring an amoeboid-like migration mode and indicated that the combined MMP inhibitor and ROCK inhibitor can be used as an attractive antitumor drug candidate for the treatment of GBM [1].

1)
Yan S, Xue H, Zhang P, Han X, Guo X, Yuan G, Deng L, Li G. MMP inhibitor Ilomastat induced amoeboid-like motility via activation of the Rho signaling pathway in glioblastoma cells. Tumour Biol. 2016 Oct 14. PubMed PMID: 27743382.