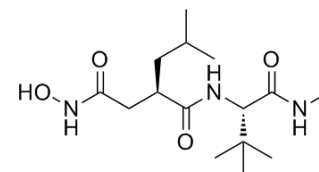


Ro 31-9790

Cat. No.:	HY-101703
CAS No.:	145337-55-9
Molecular Formula:	C ₁₅ H ₂₉ N ₃ O ₄
Molecular Weight:	315.41
Target:	MMP
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Ro 31-9790 is a synthetic metalloproteinase (MMP) inhibitor.
IC ₅₀ & Target	MMP ^[1]
In Vitro	Ro 31-9790 inhibits L-selectin shedding from mouse and human lymphocytes, Jurkat T cells, and human monocytes with an IC ₅₀ of 0.3-0.4 μM on these cell types. The IC ₅₀ values obtained for Ro 31-9790 are 4.82 ± 0.75 μM, 1.16 ± 0.27 μM, 0.70 ± 0.06 μM, 4.47 ± 1.27 μM and 0.38 ± 0.05 μM for mouse lymphocyte L-selectin shedding, Jurkat L-selectin shedding, human lymphocyte L-selectin shedding, human monocyte L-selectin shedding and human monocyte TNF-α shedding ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay ^[1]	<p>For mouse and human lymphocytes and Jurkat T cells, 100% inhibition is set as the percentage of cells positive for L-selectin in an untreated sample (after flow cytometric analysis) or the concentration of soluble L-selectin in the supernatant of an untreated cell sample (after ELISA); 0% inhibition is set at the appropriate value for a PMA-treated sample. For results from human monocytes, a different calculation is needed to allow direct comparison of L-selectin and TNF-α shedding. Therefore, in this case 100% inhibition is set as the percentage of cells positive for L-selectin in the presence of PMA+50 μM Ro 31-9790 or the percentage of cells positive for cell surface TNF-α in the presence of LPS+50 μM Ro 31-9790 (doses of Ro 31-9790 which gave maximal inhibition); 0% inhibition is set as the percentage of cells positive for L-selectin or TNF-α in the presence of PMA or LPS, respectively. Intermediate percent inhibition is calculated. The IC₅₀ value for inhibitor in each system is defined as the concentration of inhibitor which gave 50% inhibition, where 100% inhibition is set as the percentage of cells positive for L-selectin or cell surface TNF-α in the presence of Phorbol myristate acetate (PMA)+50 μM Ro 31-9790 or Lipopolysaccharide (LPS)+50 μM Ro 31-9790, respectively (doses of Ro 31-9790 which gave maximal inhibition) and 0% inhibition is set as the percentage of cells positive for L-selectin or TNF-α in the presence of PMA or LPS alone, respectively^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
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REFERENCES

Caution: Product has not been fully validated for medical applications. For research use only.

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