

Volociximab: $\alpha 5\beta 1$ Antagonist - Wet AMD Intravitreal

Volociximab (Ophthotech) is a high-affinity chimeric monoclonal antibody (Mab) that inhibits the functional activity of alpha-5 beta-1 integrin found on the endothelial cells involved in the formation of blood vessels.

“Volociximab binds to $\alpha 5\beta 1$ integrin and blocks the binding of $\alpha 5\beta 1$ integrin to fibronectin, thereby inhibiting a pivotal interaction required for angiogenesis.

Volociximab administration has resulted in strong inhibition of rabbit and primate retinal neovascularization.

In monkeys with laser-induced choroidal neovascularization (CNV), volociximab significantly inhibited CNV proliferation and reduced the degree of lesion formation.

In a rabbit model, volociximab administered either intravenously or intravitreally prior to the onset of neovascularization significantly reduced angiogenesis as compared to control.

Similar anti-angiogenic efficacy with volociximab has also been shown in multiple preclinical models of tumor angiogenesis.”⁽³¹⁾

A phase I open-label, multicenter study of volociximab is currently on going.

The objectives of this study are to evaluate the safety, tolerability, and pharmacokinetic profile of volociximab intravitreal injection in subjects with subfoveal choroidal neovascularization secondary to age-related macular degeneration (AMD)⁽³²⁾.

[View PDF](#)