

# A2M

(Alpha-2-Macroglobulin)



## What is A2M (a-2-Macroglobulin)?

Alpha-2-macroglobulin (A2M) is a plasma protein and is found in significant quantities in the blood. A2M has been described as a broad spectrum multi-purpose protease inhibitor. This means that it is able to inactivate a variety of proteinases that are known to degrade cartilage.<sup>1-2</sup>

Osteoarthritis (OA) is in part due to the diseased joint overproducing several chemicals that slowly erode cartilage. By inhibiting these chemicals (proteases), alpha-2-macroglobulin can stop the progression of OA by preventing the cartilage from breaking down and avoiding cartilage loss, which improves joint function and decreases pain.

## A2M Therapy

OA is a common health problem that can cause knee pain. Temporary relief from the pain caused by OA can generally be achieved with non-surgical treatment options such as NSAIDs, cortisone and viscosupplementation (HA), but relief is only temporary while the root causes of osteoarthritis remain.

For long term relief of OA symptoms, a highly concentrated injection of alpha-2-macroglobulin can impact the progression of the disease. Alpha-2-macroglobulin binds to the chemicals produced in the joints that degrade cartilage and neutralizes their degenerative effect in a dose dependent manner.<sup>2</sup>

## Alpha-2-Macroglobulin (A2M) can:

- Mitigate the progression of osteoarthritis
- Reduce the pain caused by osteoarthritis
- Improve joint function
- Promote healing and repair
- Support the restoration of affected joint(s)
- Stop the breakdown of cartilage and prevent cartilage loss



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**ASK YOUR DOCTOR TODAY IF  
A2M THERAPY IS RIGHT FOR YOU.**

1. Wang, S., Wei, X., Zhou, J., Zhang, J., et al. "Identification of  $\alpha_2$ -Macroglobulin as a Master Inhibitor of Cartilage-Degrading Factors that Attenuates the Progression of Posttraumatic Osteoarthritis." *Arthritis & Rheumatology* 66.7 (2014): 1843-1853

2. Luan, Y., Kong, L., Howell, D., et al. "Inhibition of ADAMTS-7 and ADAMTS-12 Degradation of Cartilage Oligomeric Matrix Protein by Alpha-2-Macroglobulin." *Osteoarthritis Cartilage* 16.11 (2008): 1413-1420

TEL - 888.392.5076  
FAX - 888.392.1455  
WEB - PLYMOUTHMEDICAL.COM

PLYMOUTH MEDICAL  
135 PLYMOUTH ST, SUITE 410  
BROOKLYN, NY 11201