

Scientific evidence supports effectiveness of Chinese drug for cataracts

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Scientists are reporting a scientific basis for the long-standing belief that a widely used non-prescription drug in China and certain other countries can prevent and treat cataracts, a clouding of the lens of the eye that is a leading cause of vision loss worldwide. Their study appears in *Inorganic Chemistry*.

In the study, Tzu-Hua Wu, Fu-Yung Huang, Shih-Hsiung Wu and colleagues note that eye drops containing pirenoxine, or PRX, have been reputed as a cataract remedy for almost 60 years. Currently, the only treatment for cataracts in Western medicine is surgical replacement of the lens, the clear disc-like structure inside the eye that focuses light onto the nerve tissue in the back of the eye. Despite the wide use of pirenoxine, there have been few scientific studies on its actual effects, the scientists note.

To fill that gap, the scientists tested pirenoxine on cloudy solutions that mimic the [chemical composition](#) of the eye lens of cataract patients. The solutions contained crystallin — a common lens protein — combined with either calcium or selenite, two minerals whose increased levels appear to play key roles in the development of [cataracts](#). Presence of PRX reduced the cloudiness of the lens solution containing calcium by 38 percent and reduced the cloudiness of the selenite solution by 11 percent. "These results may provide a rationale for using PRX as an anti-cataract agent and warrant further biological studies," the article notes.

More information: "Ditopic Complexation of Selenite Anions or

Calcium Cations by Pirenoxine: An Implication for Anti-Cataractogenesis", *Inorganic Chemistry*.

Provided by American Chemical Society

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