

**NEW METHOD FOR THE DIAGNOSIS OF GLAUCOMA OR CATARACTS IN A SINGLE SUBJECT.**

**SUMMARY**

The present invention consists of a new method for diagnosing glaucoma or cataracts in a subject through the quantification of proteins in aqueous humour samples.

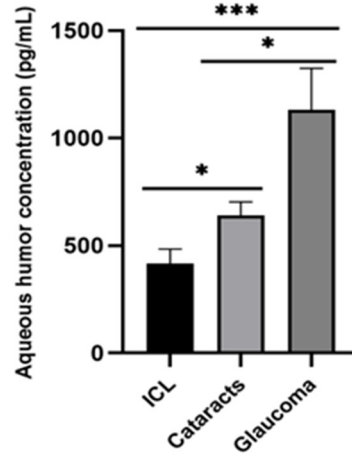
**DESCRIPTION**

Chronic eye diseases represent a growing public health problem due to the general ageing of the population and changes in lifestyle. Glaucoma and cataracts, which cause progressive and severe vision loss, are among the most prominent eye diseases and are responsible for most cases of blindness worldwide.

Elevated intraocular pressure (IOP) is considered a major risk factor for the onset and progression of glaucoma, and consequently the therapies employed are aimed at lowering IOP. However, the high incidence of normal IOP glaucoma (30-40% of patients) and the recurrence of patients who continue to lose vision even with successfully controlled IOP values, highlight the fact that elevated IOP is not the sole determinant in the development of the disease.

The present inventors isolated and characterised exosomes from the aqueous humour of subjects with a clear lens (ICL, controls), cataract patients and glaucoma patients. In addition, they performed a characterisation of the exosomal protein content in the humour detecting significant changes in protein content between the different groups of subjects, and indicating the existence of specific exosomal protein profiles in these ocular diseases.

The protein biomarkers identified in the invention facilitate the preventive diagnosis of glaucoma.



**COMPETITIVE ADVANTAGES**

- Easy to prepare and obtain.
- Priority patent application (January 2024).

**INNOVATIVE ASPECTS**

- New proteins for diagnostics.
- Greater specificity.

**KEYWORDS**

- Glaucoma
- Biomarkers
- Diagnosis

**MAIN ACTIVITY SECTOR**

Ophthalmology

**COLLABORATION EXPECTED**

Licensees of the patent application or interested in licensing and collaboration agreements for the development of the technology are sought.

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