

# Intelligent Remedies, Inc.

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## Ionophoric Zn™

### Anti-Viral Extract

### Product Information Sheet



**Ionophoric Zn™ "Anti-Viral Extract"** contains **Phytotherapeutic Extracts of *Elitaria cardamomum*, *Curcuma longa*, *Camellia sinensis*, *Cinchona officinalis*, *Taraxacum officinale*, and *Cinnamomum verum***. The principle action of **Ionophoric Zn** is to stop the coronavirus from replicating. It does this by introducing zinc (found in *Elitaria cardamomum*) through the cell membrane via the ionophoric action of *Camellia sinensis*, *Cinchona officinalis* and *Taraxacum officinale*.

The mechanism for Sars-CoV-2 viral infection is one of ingress through the cell membrane into the cell's cytoplasm, where the virus RNA replicase hi-jacks the cells protein production process to reproduce its own RNA. It has been demonstrated that RNA dependent RNA replicase (RdRp) can be stopped by the introduction of Zn<sup>2+</sup>. However, Zn<sup>2+</sup> cannot freely penetrate the cell membrane on its own. Subsequently, it was discovered that ionophores will bind with Zn<sup>2+</sup> and escort the zinc through the cell membrane where it can stop the Sars-CoV-2 replicase from reproducing.

Quercitin (QCT), epigallocatechin3-gallate (EGCG) and Chloroquine (Cq) are ionophores and can efficiently transport Zn<sup>2+</sup> through the cell membrane where it can impair the replication of a variety of RNA viruses, including Sars-CoV-2 virus. Increasing the intracellular Zinc concentration with zinc-ionophores has been attributed to interference with viral polyprotein replication. The RNA synthesis of coronaviruses is catalyzed by an RNA-dependent RNA polymerase (RdRp), which is the core enzyme of their multiprotein replication and transcription complex (RTC). Treatment of cells with zinc together with QCT, EGCG, or CQ elicits a rapid and drastic increase in detectable intracellular zinc. These ionophores form membrane-permeable complexes that are transported into the cell and that, once within the cell, chelator-zinc complexes dissociate into the single compounds due to the low concentration of intracellular free and labile zinc, thus providing labile zinc cations. The Zn<sup>2+</sup> cation then stops the Coronavirus RdRp from reproducing and the body's macrophage defense system can eliminate the remaining virus.

***Elitaria cardamomum***, the highest source of plant-based zinc..

***Curcuma longa*** a powerful anti-oxidant and has anti-inflammatory properties.

***Camellia sinensis***, Source of EGCG an Ionophore molecule.

***Cinchona officinalis***, Source of Chloroquine- an ionophore molecule.

***Taraxacum officinale***, Source of Quercitin- an ionophore molecule.

***Cinnamomum verum***. Contains antioxidants, including polyphenols, phenolic acid and flavonoids

- Highly bio-available due to heat and alcohol reflux extraction
- Extracted in Maui, Hawaii.
- **Organic**, Non-GMO, Gluten free
- Extracted with **Maui-grown organic sugarcane alcohol** and deep ocean mineral water.