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## MacroCargo™ Mouse Ana-1 with Catalase (Monocytes-hypotonic/Resealing)

Cat. No.: MTS-1122-YF185

This product is for research use only and is not intended for diagnostic use.

### Cell Properties

Product Overview	As a therapeutic tool, macrophage cell has a great capacity for delivering cargos because of their intrinsic characteristics. This product is engineered Mouse Ana-1 carried with Catalase by Monocytes-hypotonic/Resealing. MacroCargo™ products aim to improve the macrophage function and delivery of specific cargos. We also provide custom macrophage delivery systems based on your specific requirements.
Cell Name	Ana-1
Cell Type	Cell Line
Cell Species	Mouse
Cell Background	Ana-1 is a macrophage cell line, isolated from mouse thymus.

### Cargo Properties

Cargo Type	Protein
Specific Cargo	Catalase
Cargo Common Name	CAT
Cargo Full Name	Catalase
Introduction	This gene encodes catalase, a key antioxidant enzyme in the body's defense against oxidative stress. Catalase is a heme enzyme that is present in the peroxisome of nearly all aerobic cells. Catalase converts the reactive oxygen species hydrogen peroxide to water and oxygen and thereby mitigates the toxic effects of hydrogen peroxide. Oxidative stress is hypothesized to play a role in the development of many chronic or late-onset diseases such as diabetes, asthma, Alzheimer's disease, systemic lupus erythematosus, rheumatoid arthritis, and cancers. Polymorphisms in this gene have been associated with decreases in catalase activity but, to date, acatalasemia is the only disease known to be caused by this gene.
UniprotID	<a href="#">P04040</a>
GeneID	<a href="#">847</a>

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## Product Properties

Applications	Scavenging of reactive oxygen species (ROS) by antioxidants to alleviate the symptoms of cardiovascular diseases and atherosclerosis
Mycoplasma Testing	Negative
Sterility Testing	Negative
Shipping	Dry ice
Storage	Frozen cells should be stored in a liquid nitrogen tank (-150°C~-190°C) for long term.
Handling Notes	Frozen cells should be thawed immediately upon receipt and grown according to handling procedure to ensure cell viability and proper assay performance. Note: Do not freeze the cells upon receipt as it may result in irreversible damage to the cell line. Disclaimer: We cannot guarantee cell viability if the cells are not thawed immediately upon receipt and grown according to handling procedure.
Restriction	Research use only