



Clophosome® - Neutral Liposomal Clodronate for Macrophage Depletion

Clophosome®, neutral clodronate liposomes, offers highly efficient *in vivo* macrophage depletion. Clodronate molecules are encapsulated in small LUV liposomes for superior activity, physical and chemical stability, and convenience of use. It is formulated to exceptionally high clodronate/lipid ratio and the encapsulation efficiency of clodronate is above 90%. Clophosome liposomes remain homogenous and free-flow after long term storage. The product is suitable for dosing with various routes including intravenous, intraperitoneal, subcutaneous, intranasal, intratracheal etc. A starting dose of 0.2 mL (*i.v.* or *i.p.*) for 20-25g animal body weight is recommended. Optimization is recommended for specific applications.

ALWAYS CLEAN WITH ALCOHOL AND DO NOT REUSE THE NEEDLES

Animals become sensitive to infection when macrophages are depleted and the immune system is compromised. It is extremely important to conduct the injection in a clean environment particularly for long-term depletions. Withdraw the liposomes through the rubber stopper (clean with alcohol first) with a new sterile needle. Always clean the injection site with alcohol and use a new and sterile needle for each injection.

PRODUCT CODE #:	F70101C-N
BATCH #:	11211301
DATE OF PRODUCTION:	11/23/2013
LIPID COMPOSITION:	Phosphatidylcholine and cholesterol
ACTIVE:	Clodronate, (Dichloromethylene) bisphosphonic acid disodium salt (CAS:88416-50-6, 22560-50-5)
CLODRONATE Concentration:	7 mg/mL
CLODRONATE ENCAPSULATION:	> 90%
PARTICLE SIZE:	Meet specification
BULK SOLUTION:	PBS (10% sucrose, 20mM Na PO ₄), pH 7.0-7.4
RECOMMENDED DOSE:	For macrophage depletion up to one week: 200 µL day 1 (for 20-25g body wt). For more consistent results inject 2 days in advance For longer macrophage depletion: 200µL first dose, 100µL every 4 days
FORM/COLOR:	Milky and free flow liposomal dispersion, There may be some settlement of the liposomes which should disperse with proper mixing.
STORAGE AND HANDLING:	Store refrigerated (2-8 deg C). Avoid freezing. Warm to room temperature and mix well before use
STABILITY AND GUARANTEE:	Product is sterile filtered and filled in autoclaved glass vials. Formulation stability and sterility are guaranteed (exchange only) for 6 month for unused vials stored at 2 – 8 °C

Product For Research Only, Not For Human or Companion Animal Use



Plain Control Liposomes for Clophosome[®] (Neutral)

This empty liposome product is to be used as a negative control for Clophosome[®] in macrophage depletion studies. It has the same lipid composition and concentration as for Clophosome[®].

PRODUCT CODE #:	F70101-N
BATCH #:	05151401
DATE OF PRODUCTION:	05/16/2014
LIPID COMPOSITION:	Phosphatidylcholine and cholesterol
ACTIVE:	None
CLODRONATE CONCENTRATION:	Zero
CLODRONATE ENCAPSULATION:	n/a
PARTICLE SIZE:	Meet specification
BULK BUFFER SOLUTION:	PBS (20mM NaPO ₄ , 10% sucrose), pH 7.2
RECOMMENDED DOSE:	Recommended dose: equivalent to the Clophosome [®] dose
FORM/COLOR:	

Milky and free flow liposomal dispersion, There may be some settlement of the liposome particles which should disperse with gentle mixing

STABILITY AND GUARANTEE:

Product is sterile and filled in autoclaved glass vials. Stability and sterility are guaranteed (exchange only) for 6 month for unused vials stored at 2 – 8 °C

STORAGE AND HANDLING:

- Store refrigerated (2-8 deg C). **Avoid freezing.** Warm to room temperature and mix well before use.
- Dilute in PBS or other isotonic buffer solutions if necessary.

Product is For Research Only, Not for Human Use



Clophosome®-A - Anionic Liposomal Clodronate for Macrophage Depletion

Clophosome®-A, clodronate liposomes, is formulated for superior efficiency of macrophage depletion *in vivo*. Clodronate molecules are encapsulated in anionic phosphatidylglycerol LUV liposomes for superior activity, physical and chemical stability, and convenience of use and handling. The liposomal encapsulation efficiency of clodronate is no less than 90%. The product is suitable for dosing with various routes including intravenous, intraperitoneal, subcutaneous and etc. It is sterile filtered for long term shelf-life. A starting dose of 0.2 mL (*i.v.* or *i.p.*) for 20 - 25g animal body weight is recommended, optimize if necessary.

IMPORTANT NOTES: ALWAYS CLEAN WITH ALCOHOL AND DO NOT REUSE THE NEEDLE

Animals become sensitive to infection when macrophages are depleted and the immune system is compromised. It is extremely important to conduct the injection in a clean environment. Withdraw the liposomes through the rubber stopper (clean with alcohol first) with a new sterile needle. Always clean the injection site with alcohol and use a new and sterile needle for each injection.

CATALOGUE #:	F70101C-A
BATCH #:	12031302
DATE OF PRODUCTION:	12/06/2013
LIPID COMPOSITION:	Phosphatidylglycerol, phosphatidylcholine and cholesterol
ACTIVE:	Clodronate: (Dichloromethylene) bisphosphonic acid disodium salt tetrahydrate (CAS:88416-50-6, 22560-50-5)
CLODRONATE CONCENTRATION:	7 mg/mL
CLODRONATE ENCAPSULATION:	> 90%
BULK SOLUTION:	PBS (10% sucrose, 20mM Na PO ₄), pH 7.0-7.4
RECOMMENDED DOSE:	For macrophage depletion up to one week: 200 uL day 1 (for 20-25g mouse) For more consistent results inject 2 days in advance For longer macrophage depletion: 200uL first dose, 100uL every 4 days
FORM/COLOR:	Milky and free flow liposomal dispersion, Some settlement of the liposome particles may occur which should disperse with proper mixing.

STORAGE AND HANDLING:

Store refrigerated (2-8 deg C). **Avoid freezing.** Warm to room temperature and mix well before use

STABILITY AND GUARANTEE:

Product is sterile filtered and filled in autoclaved glass vials. Formulation stability and sterility are guaranteed (exchange only) for 6 month for unused vials stored at 2 – 8 °C

Product For Research Only, Not For Human and Companion Animal Use



Placebo Control Liposomes for Clophosome[®]-A (Anionic)

This empty liposome product is to be used as a negative control for Clophosome[®]-A in macrophage depletion studies. It has the same lipid composition and concentration as for Clophosome[®]-A (F70101C-A).

PRODUCT CODE #:	F70101-A
BATCH #:	02051402
DATE OF PRODUCTION:	02/10/2014
LIPID COMPOSITION:	Phosphatidylcholine, phosphatidylglycerol, and cholesterol
ACTIVE:	None
CLODRONATE CONCENTRATION:	n/a
CLODRONATE ENCAPSULATION:	n/a
PARTICLE SIZE:	Meet specification
BULK BUFFER SOLUTION:	Phosphate buffered sucrose (20mM sodium phosphate, 10% sucrose), pH 7.2
RECOMMENDED DOSE:	Recommended dose: equivalent to the Clophosome [®] - A dose
FORM/COLOR:	

White and free-flow liposomal dispersion, There may be some settlement of the liposome particles which should disperse with proper mixing

STABILITY AND GUARANTEE:

Product is sterile filtered and filled in autoclaved glass vials. Formulation stability and sterility are guaranteed (exchange only) for 6 month for unopened vials stored at 2 – 8 °C

STORAGE AND HANDLING:

- Store refrigerated (2-8 deg C). **Avoid freezing.** Warm to room temperature and mix well before use.
- Dilute in PBS or other isotonic buffer solutions if necessary.

Product Is For Research Only, Not For Human Use