CALDESMON **ELISA KIT**

MATERIAL SAFETY DATA SHEET

Handling and disposal of the product under normal laboratory conditions does not constitute a risk to personnel or environment.

1. DATA ON COMPONENTS

Regarding components comprised in the kit, the following products are defined as hazardous chemical according the Directive 67/548/EEC.

Hazardous chemical contained in the product:

ProClin 300: at a final concentration from 0.01-0.03% is used as preservative in the following components of the kit : Detection antibody , Streptavidin-HRP
Sulfuric Acid : 2N at a final concentration is used in Stop Solution Reagent
TMB (Tetramethylbenzidine): is used as chromogen in the TMB solution

Other chemical contained within these products do not meet definition of a hazardous chemical according EC Directives.

2. GENERAL INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. FIRALIS S.A.S. shall not be liable for any damages resulting from handling or from contact with the above products.

This product should be used according to the safety recommendations and its instructions for use and it should be used only by qualified personnel in safe laboratory conditions.

2.1 IDENTIFICATION OF THE PRODUCT

Manufacturer:
Firalis SAS
35 rue du Fort
68330 – Huningue FRANCE
+00 33 389 911 320
www.firalis.com

Product Identification:
The assay is a sandwich ELISA (enzyme linked immunosorbant assay). This technique is based on the recognition of a specific biomarker by 2 monoclonal antibodies.

The assay is sold to the customer as a ready to use kit with the following components:

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Kit components	Quantity
Pre-coated **Microplate,** 96 wells, ready to use	1 plate
Standard calibrator, recombinant lyophilized protein	1 vial
Detection antibody, 350 µL, 20X concentrated	1 vial
Vial for detection antibody dilution	1 vial
Streptavidin-HRP, 80µl, 100X concentrated	1 vial
Streptavidin-HRP diluent, 6mL, ready to use	1 vial
10X Wash Buffer, 50 mL, 10X concentrated	1 vial
TMB substrate, 12 mL, ready to use	1 vial
Stop Solution, 6 mL, ready to use	1 vial
Sample Diluent, to reconstitute	1 vial
Plate Sealers	5

2.2 DATA ON COMPONENTS

Kit components	Chemical component	%	CAS Number	EC Number	Classification (pure component)	Signal
Pre-coated **Microplate,** 96 wells, ready to use	-				NA	
Standard calibrator, recombinant protein, lyophilized	-				NA	
Detection antibody, 350 µL, 20X concentrated	Proclin 300	0.03%	55965-84-9	203-821-4	C:R20/21/22-34-43 N: R51/53	
Vial for detection antibody dilution	-				NA	
Streptavidin-HRP, 80µl, 100X concentrated	Proclin 300	<0.01%	55965-84-9	203-821-4	C:R20/21/22-34-43 N: R51/53	
Streptavidin-HRP diluent, 6mL, ready to use	-				Not Hazardous	
10X Wash Buffer, 50 mL, 10X concentrated	-				Not Hazardous	
TMB substrate (3,3',5,5'Tetramethylbenzidine), 12 mL, ready to	Triethylenetetramine	0.001%	54827-17-7	259-364-6	Xi:R36-37/38	

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use						
Stop Solution, 6 mL, ready to use	Sulfuric Acid	2N	7664-93-9	231-639-5	C:R35	
Sample Diluent, to reconstitute	-				NA	
Plate Sealers	-				NA	

2.3 HAZARD IDENTIFICATION

Sulfuric Acid: C Corrosive

Information concerning to particular hazards to man and environment: Can cause burns

Other components: not applicable or not expected to produce significant adverse when the recommended instructions are followed.

Information concerning to particular hazards to man and environment: not applicable or not show significant effects.

2.4 FIRST AID MEASURES

General information
No special measures required.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Generally, the product does not irritate the skin
After eye contact: Rinse opened eye for several minutes under running water.
After ingestion: If symptoms persist consult doctor. Do not induce vomiting

Special first aid measures:

- Stop Solution

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

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Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.

Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation.
WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

- TMB

Inhalation: Remove the affected person from the gas source or contaminated area. If the affected person is not breathing spontaneously, administer rescue breathing.

Skin Contact: Flush with a copious stream of water while removing contaminated clothing. Continue flushing until the professional medical assistance arrives, but for no less than fifteen minutes. Assume the patient has also been exposed by inhalation and obtain professional medical assistance immediately. Treat thermal burns by flushing with cool water to assure that affected area is cool, then applying dry sterile dressings. If the patient is burned on the face, neck, head, or chest, assume that the airway may also have been burned and obtain professional medical assistance immediately.

Eye Contact: Flush continuously with clean water until the professional medical assistance arrives, but for no less than thirty minutes. Continuation of flushing until patient is transferred to an ophthalmologist or emergency physician is recommended.

Ingestion: Ingestion is not an observed route of exposure to gaseous hazardous materials.

2.5 FIRE FIGHTING MEASURES

Suitable extinguishing agents.
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Protective equipment. No special measures required.

2.6 ACCIDENTAL RELEASE MEASURES

Person-related safety precautions: Not required.
Measures for environmental protections: Dilute with plenty of water.
Do not allow to enter sewers / surface or ground water.
Measures for cleaning / collecting: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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2.7 HANDLING AND STORAGE

Handling:
Information for safe handling: Avoid breathing dust, vapour, mist or gas. Avoid contact with eyes, skin and clothing.

Storage:
Requirement to be met by storerooms and receptacles: Store in a cool, dry, well ventilated area away from incompatible substances.
Information about storage in one common storage facility: Not required Further information about storage conditions: None
Storage class: Store product and all components at 2-8°C (4°C recommended)

2.8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data
The product does not contain any relevant quantities of material with critical values that have to be monitored at the workplace.
Personal protective equipment:
General protective, hygienic measures and good laboratory practices.
Use of laboratory coat when handling.
The usual precautionary measures are to be adhered to when handling chemicals
Respiratory protection: Not required
Protection of hands: Protective gloves
Eye Protection: Goggles recommended during refilling and stop solution handling
Contaminated work clothing should not be allowed out of the workplace

2.9 PHYSICAL AND CHEMICAL PROPERTIES

Odour: Odourless
Melting point/Melting range: N/A
Boiling point/Boiling range: N/A
Flash point: Not applicable
Autoignition temperature: N/A
Danger of explosion: Product does not present an explosion hazard
Densitiy: N/A
Solubility in / Miscibility with water: fully miscible

Kit component	Form	Colour
Pre-coated Microplate	Solid	Colourless
Standard calibrator	Powder	White
Detection antibody	Liquid	Colourless
Vial for detection antibody dilution	Solid	Colourless
Streptavidin-HRP	Liquid	Colourless
Streptavidin-HRP diluent	Liquid	Colourless
10X Wash Buffer	Liquid	Colourless

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TMB substrate, 12 mL, ready to use	Liquid	Clear
Stop Solution, 6 mL, ready to use	Liquid	Colourless
Sample Diluent, to reconstitute	Powder	White
Plate Sealers	Solid	Colourless

2.10 STABILITY AND REACTIVITY

Thermal decomposition: No decomposition if used according to specifications.
Dangerous reaction: Exothermic reaction with Water (concentrated Sulfuric Acid). Avoid contact with alkaline solutions, metal, metals powder, chlorates, nitrates, strong oxiditing or reducing materials, and combustible organic material.
Incompatible with bases, amines, alkali metals, copper, copper alloys (TMB)
Dangerous decomposition products: Toxic fumes of oxides of sulphur when heated to decomposition.

2.11 TOXICOLOGICAL INFORMATION

Route of entry: Skin Contact, Eye contact, Inhalation, Ingestion.
Effects of acute exposure to Product: Acute poisoning may cause gastrointestinal irritation and renal failure. May be harmful if inhaled, swallowed or absorbed through the skin.
Effects of chronic exposure to Product: Chronic ingestion may result in salicylism which is characterized by nausea, vomiting, gastrointestinal ulcers, and haemorrhagic strokes. Laboratory experiments have shown mutagenic effects. Target organs: Kidneys and central nervous system (TMB).
Exposure Limits : N/A
Irritancy : N/A
Sensitization to Product: N/A
Carcinogenicity :N/A
Terratogenicity: N/A
Reproductive Toxicity: N/A
Mutagenicity: N/A
Synergistic Products : N/A

2.12 ECOLOGICAL INFORMATION

General Notes: Do not allow product to reach ground water, water course or sewage system.

2.13 DISPOSAL CONSIDERATIONS

Waste disposal: dispose of in accordance with local official environmental regulations.

2.14 TRANSPORTATION INFORMATION

Special shipping information: N/A
Recommended temperature shipping: 2-8˚C

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2.15 REGULATIONS

Observe the general safety regulations when handling chemicals.
Dispose biological and chemical waste according to the national and local regulations.

2.16 OTHER INFORMATION

This document does not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The product contains the instruction for use and safety requirements for its use.

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