

## Antibody Datasheet

<b>Product Name:</b>	Mouse anti <i>Listeria monocytogenes</i>
<b>Clone number:</b>	LZH1
<b>Isotype:</b>	Mouse IgG <sub>1</sub>
<b>Product code:</b>	MAB12260-100
<b>Batch Number:</b>	
<b>Amount:</b>	0.1mg
<b>Concentration:</b>	1 mg/ml
<b>Buffer:</b>	Phosphate Buffered Saline pH7.4
<b>Preservative:</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Purification:</b>	The antibody was purified by affinity chromatography on protein A sepharose.
<b>Specificity:</b>	This antibody is specific for <i>Listeria monocytogenes</i> (Lm). The antibody recognises intact cells and outer membrane fraction of <i>Listeria monocytogenes</i> .
<b>Applications:</b>	ELISA, WB. The antibody is suitable for use as a capture antibody with clone LZ7 (MAB12259) in ELISA assays.
<b>Secondary reagents:</b>	Goat anti mouse IgG:HRP (PAB21441HRP)
<b>Antigen background:</b>	<i>Listeria monocytogenes</i> (Lm) is a rod-shaped, non-spore forming, gram-positive facultative anaerobic bacterium of the family <i>Listeriaceae</i> . <i>L. monocytogenes</i> is the causative agent of a severe and life threatening foodborne disease known as listeriosis, which occurs worldwide and was first linked to <i>Lm</i> in the early 1980s. Twelve serotypes of <i>L. monocytogenes</i> have been identified based on the somatic (O) and flagellar (H) antigens present on the cell surface. Three serotypes, classified as 1/2a, 1/2b and 4b, are responsible for 95% of reported cases of listeriosis ( <a href="#">CDC</a> ).



In nature, *L. monocytogenes* is ubiquitous in soil, water, animal waste and decaying plants, where it acts as a saprophyte. It is resistant to alcohol treatment, freezing and drying, and can survive under broad pH ranges and temperatures ranging from -2 to 42°C. Transmission of *Lm* to humans can occur via a diverse range of food types including pre-cooked contaminated meat, unpasteurised dairy products, soft cheese, vegetables, fruit and undercooked ready-to-eat food products.

In the infected host, *L.monocytogenes* can invade and proliferate in a wide variety of cell types and tissues. Once inside the cell, *Lm* can enter the cytosol and evade the immune system by spreading from cell to cell, using the actin assembly machinery ([David, DJV](#)).

In healthy adults, *Lm* infection may be asymptomatic or cause a self-limiting flu-like illness with vomiting and diarrhoea. However, in the elderly, newborn infants and immunocompromised individuals, invasive *L.monocytogenes* infection can occur leading to life-threatening diseases such as meningitis and septicaemia. In pregnant women, infection of the foetus *in utero* can cause spontaneous abortion ([CDC](#)). Although the number of annual reported cases of Listeriosis are relatively small, *Lm* infection carries a high risk of mortality and is therefore a global health concern.

## References:

Centers for Disease Control and Prevention: Listeria (Listeriosis)

David DJV, Cossart P. 2017. Recent advances in understanding Listeria monocytogenes infection: the importance of subcellular and physiological context. *F1000Res*. 2017 Jul 13;6.

## Storage:

Store at +4°C for up to three months, or at -20°C for longer periods  
The antibody is shipped at ambient temperature.  
Avoid repeated freeze/thaw cycles.

