

Table S1. Effect of amino acid concentrations on clostridial spore germination.

Potential Germinants	Germination	Minimum concentration tested at which germination occurs
L-alanine	+ve	0.5mM
L-cysteine	+ve	10mM
L-phenylalanine	+ve	10mM
L-serine	+ve	10mM
L-methionine	+ve	10mM
Glycine	+ve*	20mM
Inosine	-ve	No germination at 100mM
AGFK (L-asparagine, glucose, fructose, and potassium ions)	-ve	No germination at 100mM
L-asparagine	-ve	No germination at 100mM
Nicotinamide	-ve	No germination at 100mM
L-proline	-ve	No germination at 100mM
L-leucine	-ve	No germination at 100mM
L-isoleucine	-ve	No germination at 100mM
L-arginine	-ve	No germination at 100mM
L-glutamine	-ve	No germination at 100mM
L-aspartic acid	-ve	No germination at 100mM
L-lysine	-ve	No germination at 100mM
L-valine	-ve	No germination at 100mM

* *C. botulinum* only, no germination detected in *C. sporogenes* at 100mM.

A selection of amino acids, were assessed for their individual effect on germination of spores of *C. botulinum* and *C. sporogenes* in the presence of Tris-HCl buffer (pH 7.4), L-lactate (50mM) and NaHCO₃ (50mM). Germination was determined by a decrease in optical density (OD) at 600nm using a Bioscreen C analyser and validated by phase-contrast microscopy.