Multiple lanthionine biosynthetic genes from different pathways found in a single strain

Streptomyces griseus subsp. griseus NBRC 13350;

Streptomyces clavuligerus ATCC 27064;

Geobacillus thermodenitrificans NG80-2;

Bacillus halodurans C-125;

Streptococcus pyogenes MGAS10750;

LanB and LanL

LanB and LanL

LanB and LanL

LanB and LanL

LanB and LanB

LanM and LanB

Examples of lanthionine biosynthetic genes for different pathways found in different strains in a species

Streptococcus pneumoniae CDC1087-00; LanL
Streptococcus pneumoniae ATCC 700669; LanMs
Streptococcus pneumoniae CGSP14; LanB
Lactococcus lactis subsp. lactis C2102 LanM
Lactococcus lactis subsp. lactis 6F3 LanB

NOTE: in cases where the genome of the strain has not been fully sequenced, the current information is necessarily incomplete and multiple pathways could be present.