

Additional file 7 Ovine OBSL1 isoform X1 protein sequences (XP_027821027) for wildtype (SheepWT) and mutant (SheepMT) sheep. The predicted mutant c.1716delC (p.(Val573Trpfs*119)) altered amino acid sequence is highlighted in red.

>SheepWT

MKAGSGDQGSPPCFLRFPRPVRVVSAGAEELKCVVLGEPPPIVVWEKGGQ
QLAASDRLSFPVDGAEHCLLLSGALPTDAGVYVCRARNSAGEAYAAAAVT
VLEPPAPEPEPQLAERPLPPPGAGEGAPVFLTGPRSQWVLRGAEVVLECG
VGGLPAPTLYWEKDGMALEVDSSSHFSLEPGRAGAGASLALRILAAARLP
DSGVYVCHARNAHGHRAGALLQVQQPPESPPEDEAPTPVVEPLKCAP
KTFWVNEGKHAKFRICYMGKPEPEIEWHWEGRPLLPDRRRLMYRDRDGGF
VLKVLVCQAKDRGLYVCAARNSAGQTLASVQLHVKEPRLRFSRPLQDVEG
REHGIAVLECKVPNSRIPTAWFREDQRLPCRKYEQIEEGTVRRLIIHRL
KADDDGVYLCEMRGRVRTVANVTVKGPILKRLPRKLDVFEGENAVLLVET
REAGVEGRWSRDGEDLPATCQSSSGHMHALVLPGVTRDAGEVTFSLGNS
RTTTLRLVKCIKHSPPGPPVLAEMFKGHRNTVLLTWKPPDPTPETAFIYR
LERQEVGSEDWVQCFSIEKAGAVEVPGDCVPTEGDYRFRVCTVSEHGRSP
HVVFHGSAHLVPTARLVAGLEEVQVYDGEDAVFSLDLSTVIQGTWFLNGE
ELKSNEPEGQVGPGLRVRVEQRGLQHRLILQAVRHQDSGALIGFSCPGV
QDSAALTIQESPVHILSPQDKVSLTFTTSDRVVLTCELSRVDFPASWYKD
GQQVEESESLLVKMDGRKHRLILPEAQVQDSGEFECRTEGVSAFFSVTVQ
DPPVHIVAPREHVFVHAITSECVMLTCEVDREDAPVHWFKDGQEEVESDF
VLLESEGPHHRLVLPQAQPSIGGEFQCVAGDERAYFTVTITDVSSWIVYP
SGKVYVAAVRLERVVLTCELCRPWAEVRWTKDGEEVVESPTLLLQKEDTV
RRLVLPVQLEDSGEYLCEIDDESASFVTVTVEPPVRILYPRDEVTLVAV
SLECVVLMCELSREDAPVRWYKDGLEVEESEALVLES DGPRRRLVLPAAQ
PQDGGFVCDAGDDSAFFTVTVTAPPERIVHPPAARSLDLQFRAPGRVELR
CEVAPAGSQVRWYKDGLEVEASEALQLGAEGPTRTLTLPHAQPEDAGEYV
CETRDEAVTFNVSLAEPPVQFLAPEAAPGPLCVAPGEPVVLSCELSRAGA
LVFWSHNGKPVQTGEGLELRAEGPRRVLCIRAADLAHAGLYTCQCGAAPG

APSLSFTVQVAEPPVRVVAPEAAQTRVRSTPGGDLELAVRLSGPGGPVRW
YKDGERLASQGRVQLEQDGARQVLRVRGARSRDAGEYLC DTPQDSRI FLV
SVEEPPLVKLVSEL TPLTVHEGDDATFRCEVSPPDADITWLRNGVVITPG
PQLETTQNGSSRTLTVRSCRLEDAGTVTARAGGTSTSARLHVRETELLFL
RRLQDVRAEEGQDVCLEVETGRVGAAGAVRWVRGGAPLPPDSRLSTAQDG
HVFRLF IHSVVLADQGTYGCESHHDRTLARLSVRPKQLRVLRPLEDVTII
EGGNATFQLELSQEGVTGEWARGGVRLQPGPKCQIQ AEGPTHHLVLSGLG
LADSGCISFTADTLRCAARLTVREAPVTIVRGLQDLEVTEGDTATFECAL
SQALADVTWEKDGQPLTPSARLRLQALGTRRLLQLRRCSPLDAGTYSCVV
GMARTGPVHLVVREERKVSVLSELRSVSAREGDGATFECTVSEVETAGSWE
LGGRPLRP GGRVRI RQEGKKHILVLSELRAEDAGEVRFQAGPAQSV AQLE
VEALPLQMRRRPPREKTVLVGRRAVLEVTVSRPGGQVCWLREGAELCPGD
KYQLRSHGPTHSLVIHDVRPEDQGTYYCCRAGQDSAYTRLLVEGDAPLST

>SheepMT

MKAGSGDQGSPPCFLRFPRPVRVVS GAEAE LKCVVLGEPPPIVVWEKGGQ
QLAASDRLSFPVDGAEHCLLLSGALPTDAGVYVCRARNSAGEAYAAA AVT
VLEPPAPEPEPQLAERPLPPPGAGEGAPVFLTGPRSQWVLRGAEVVLE CQ
VGGLPAPTLYWEKDGMA LDEVWDSSHFSLEPGRAGAGASLALRILAARLP
DSGVYVCHARNAHG HARAGALLQVQQPPESP PEDPDEAPT PVVEPLKCAP
KTFWVNEGKHAKFR CYVMGKPEPEIEWHWEGRPLLPDRRRLMYRDRDGGF
VLKVLYCQAKDRGLYVCAARNSAGQTL SAVQLHVKEPRLRFSRPLQDVEG
REHGIAVLECKVPNSRIPTAWFREDQRLLPCKRYEQIEEGTVRRLIIHRL
KADDG VYLCEMRGRVRTVANVTVKGPILKRLPRKLDVFEGENAVLLVET
REAGVEGRWSRDGEDLPATCQSSSGHMHALVLPGV TREDA GEVTFSLGNS
RTTTLLRVKCIKHSPPGPPVLAEMFKGHRNTVLLTWKPPDPTPETAFIYR
LERQEVGSEDWVQCFSIEKAGAWRCPGTACLPKATTASESALSANTAAAP
TWCSTGLLTSCPQLAWWL VWRRYRCMMGKTPSSPWISPPSSRAPGSLTGR
SSRVTSQRARWGPGPCGTGWNSVACSTGSSCRPSGIRTAGE