

Product datasheet for **MR216957L4V**

Polh (NM_030715) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Polh (NM_030715) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Polh
Synonyms:	RAD30A; XPV
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_030715
ORF Size:	2082 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR216957).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	NM_030715.3
RefSeq Size:	2580 bp
RefSeq ORF:	2085 bp
Locus ID:	80905
UniProt ID:	Q9JIN0
Cytogenetics:	17 C



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Gene Summary:

DNA polymerase specifically involved in the DNA repair by translesion synthesis (TLS) (PubMed:10871396). Due to low processivity on both damaged and normal DNA, cooperates with the heterotetrameric (REV3L, REV7, POLD2 and POLD3) POLZ complex for complete bypass of DNA lesions. Inserts one or 2 nucleotide(s) opposite the lesion, the primer is further extended by the tetrameric POLZ complex. In the case of 1,2-intrastrand d(GpG)-cisplatin cross-link, inserts dCTP opposite the 3' guanine (By similarity). Particularly important for the repair of UV-induced pyrimidine dimers (PubMed:10871396). Although inserts the correct base, may cause base transitions and transversions depending upon the context. May play a role in hypermutation at immunoglobulin genes. Forms a Schiff base with 5'-deoxyribose phosphate at abasic sites, but does not have any lyase activity, preventing the release of the 5'-deoxyribose phosphate (5'-dRP) residue. This covalent trapping of the enzyme by the 5'-dRP residue inhibits its DNA synthetic activity during base excision repair, thereby avoiding high incidence of mutagenesis. Targets POLI to replication foci (By similarity). [UniProtKB/Swiss-Prot Function]