

## Recombinant METTL3 / METTL14 complex

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**Catalog No:** 31570, 31970

**Lot No:** 30716001

**Expressed In:** Baculovirus

**Quantity:** 20, 1000 µg

**Concentration:** 0.45 µg/µl

**Source:** Human

**Buffer Contents:** Recombinant METTL3 / METTL14 complex is supplied at a concentration of 0.45 µg/µl in 25 mM HEPES pH 7.5, 300 mM NaCl, 5% glycerol, 0.04% Triton X-100, 0.2 mM TCEP.

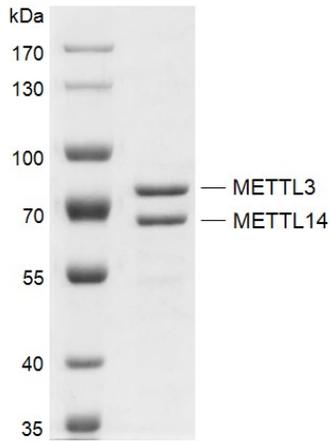
**Background:** N6-methylated adenine (m6A) is prevalently present in nearly all RNA types and can be found in all organisms from bacteria to humans. It preferentially appears around stop codons and within long internal exons in mammalian messenger RNAs. m6A plays an important role in the efficiency of mRNA splicing, processing, translation efficiency, editing and mRNA stability. m6A also takes place in other RNA molecules, such as primary miRNA (pri-miRNAs).

In mammalian cells, METTL3 (methyltransferase-like 3, also known as IME4, M6A, MT-A70) and METTL14 (methyltransferase-like 14) are two m6A methyltransferases reported to date, which both contain methyltransferase domains. These two proteins form a stable heterodimer core complex of METTL3–METTL14 that functions in cellular m6A deposition on mammalian nuclear RNAs. METTL3 is the catalytically active subunit, while METTL14 plays a structural role critical for substrate recognition.

**Protein Details:** Recombinant METTL3 / METTL14 complex that includes full length human METTL3 (accession number NP\_062826.2) without tag and full length METTL14 protein (accession number NP\_066012.1) with an N-terminal FLAG-Tag was expressed in Sf9 cells. The molecular weights of METTL3 and METTL14 are 64.5 kDa and 53.3 kDa, respectively.

**Application Notes:** Recombinant METTL3 / METTL14 complex is suitable for use in enzyme kinetics, inhibitor screening, and selectivity profiling.

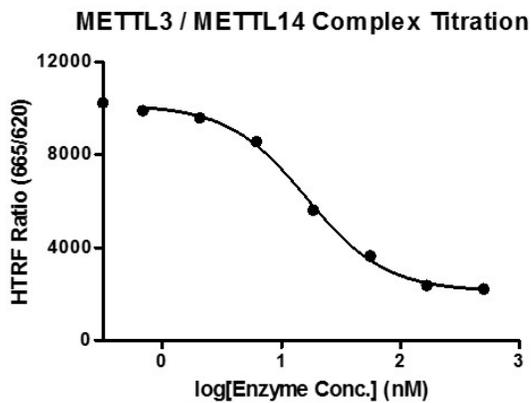
**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



### Recombinant METTL3 / METTL14 complex, protein gel.

Recombinant METTL3 / METTL14 complex was run on an 8% SDS-PAGE gel and stained with Coomassie Blue.

MW: METTL3: 64.5 kDa,  
 MW: METTL14: 53.3 kDa.  
 Purity: > 95%



### HTRF assay for METTL3 / METTL14 Complex activity

1  $\mu$ M substrate ssRNA oligos (5'-GUUGCCUGUUC GUGUUGGACUUGCCUGU-3') and 1  $\mu$ M SAM were incubated with METTL3 / METTL14 Complex in EPI diluent buffer provided by Cisbio at room temperature for 1 hour (0.2 U/ $\mu$ L RNase inhibitor was added in this system). SAH-d2 and anti-SAH-K were added to the products, then HTRF signals were read after another 1 hour incubation. EPIgeneous™ Methyltransferase Assay kit from Cisbio was used for activity assay.