

| HIV-1_Prot_Name                     | Keyword        | Human_GeneSymbol | Human_Prot_Name                           | PMID(s)                                                                                                               | Interaction_Desc                                                                                                                                                                                                        |
|-------------------------------------|----------------|------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Envelope surface glycoprotein gp120 | complexes with | RAN              | GTP-binding nuclear protein Ran isoform 1 | 23125841,                                                                                                             | Tandem affinity purification and mass spectrometry analysis identify GTP binding protein RAN (RanGTP), HIV-1 Gag, Gag/Pol, gp120, and Nef incorporated into staufen1 RNP complexes isolated from HIV-1-expressing cells |
| Pr55(Gag)                           | complexes with | RAN              | GTP-binding nuclear protein Ran isoform 1 | 23125841,                                                                                                             | Tandem affinity purification and mass spectrometry analysis identify GTP binding protein RAN (RanGTP), HIV-1 Gag, Gag/Pol, gp120, and Nef incorporated into staufen1 RNP complexes isolated from HIV-1-expressing cells |
| Pr55(Gag)                           | regulated by   | RAN              | GTP-binding nuclear protein Ran isoform 1 | 9562972,                                                                                                              | Ran terminates the nuclear import of the Matrix protein of HIV-1 Gag by directly binding to karyopherin beta and disassembling the import complex                                                                       |
| capsid                              | inhibited by   | RAN              | GTP-binding nuclear protein Ran isoform 1 | 23097435,                                                                                                             | RanGTP inhibits the ability of TNPO3 to stimulate the uncoating of HIV-1 CA cores                                                                                                                                       |
| matrix                              | regulated by   | RAN              | GTP-binding nuclear protein Ran isoform 1 | 9562972,                                                                                                              | Ran terminates the nuclear import of HIV-1 Matrix by directly binding to karyopherin beta and disassembling the import complex                                                                                          |
| Gag-Pol                             | complexes with | RAN              | GTP-binding nuclear protein Ran isoform 1 | 23125841,                                                                                                             | Tandem affinity purification and mass spectrometry analysis identify GTP binding protein RAN (RanGTP), HIV-1 Gag, Gag/Pol, gp120, and Nef incorporated into staufen1 RNP complexes isolated from HIV-1-expressing cells |
| integrase                           | inhibited by   | RAN              | GTP-binding nuclear protein Ran isoform 1 | 23878195,                                                                                                             | The binding between HIV-1 IN and TNPO3 is inhibited by RanGTP in a dose-dependent manner, leading to a TNPO3-RanGTP complex formation                                                                                   |
| Nef                                 | complexes with | RAN              | GTP-binding nuclear protein Ran isoform 1 | 23125841,                                                                                                             | Tandem affinity purification and mass spectrometry analysis identify GTP binding protein RAN (RanGTP), HIV-1 Gag, Gag/Pol, gp120, and Nef incorporated into staufen1 RNP complexes isolated from HIV-1-expressing cells |
| Rev                                 | binds          | RAN              | GTP-binding nuclear protein Ran isoform 1 | 25486595,                                                                                                             | A dimeric CRM1-RanGTP complex binds a Rev-RRE complex to export the Rev-RRE complex from the nuclear to the cytoplasm in cells                                                                                          |
| Rev                                 | binds          | RAN              | GTP-binding nuclear protein Ran isoform 1 | 9837918, 10518602, 18508616, 19149559, 21358275, 22355797, 22783232, 24530126, 25486594, 25486595, 25564443, 25723178 | the GTP bound form of Ran (RanGTP) binds to a preformed Rev-CRM1 (exportin 1) complex to mediate nuclear export of HIV-1 mRNA                                                                                           |
| Rev                                 | binds          | RAN              | GTP-binding nuclear protein Ran isoform 1 | 9837918, 18508616, 19149559, 22783232                                                                                 | binding of the GTP bound form of Ran (RanGTP) to a preformed Rev-CRM1 complex is linked to an interaction of RanGTP with the nuclear export signal (NES) of Rev (amino acids 75-83)                                     |
| Rev                                 | enhanced by    | RAN              | GTP-binding nuclear protein Ran isoform 1 | 12134013, 18508616                                                                                                    | Rev-Rev interactions (multimerization) are enhanced by RanGTP                                                                                                                                                           |
| Rev                                 | interacts with | RAN              | GTP-binding nuclear protein Ran isoform 1 | 22174317,                                                                                                             | HIV-1 Rev interacting protein, RAN, is identified by the in-vitro binding experiments involving cytosolic or nuclear extracts from HeLa cells                                                                           |
| Tat                                 | interacts with | RAN              | GTP-binding nuclear protein Ran isoform 1 | 19454010,                                                                                                             | Interaction of HIV-1 Tat with RAN in T-cells is identified by a proteomic strategy based on affinity chromatography                                                                                                     |