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C22693

## Appendix A2: KEGG phosphate processing reaction classes

RC00002

RC00005

RC00007

RC00009

RC00015

RC00017

RC00043

RC00070

RC00078

RC00151

RC00152

RC00203

RC00293

RC00295

RC00296

RC00338

RC00368

RC00408

RC00428

RC00536

RC00542

RC00579

RC00636

RC00692

RC00760

RC00763

RC00910

RC01069

RC01106

RC01107

RC01298

RC01309

RC01311

RC01436

RC01486

RC01776

RC01790

RC01825

RC02074

RC02147

RC02507

RC02590

RC02741

RC02775

RC02779

RC02780

RC02792

RC02795

RC02809

RC02889

RC03073

RC03075

RC03078

RC03130

RC03206

RC03261

RC03332

RC03338

RC03425

RC03462

RC03544

RC03551

## Appendix A3: KEGG nucleosides and nucleoside phosphates

|  |  |
| --- | --- |
| **nucleoside** | |
| C00212 | A |
| C00214 | dT |
| C00294 | Inosine |
| C00299 | U |
| C00330 | dG |
| C00378 | Thiamine |
| C00387 | G |
| C00475 | C |
| C00526 | dU |
| C00559 | dA |
| C00801 | Nucleoside |
| C00881 | dC |
| C01762 | Xanthosine |
| C05512 | Deoxyinosine |
| C16427 | Isopentenyl adenosine |
| C16431 | trans-Zeatin riboside |
| **NMP** | |
| C00020 | AMP |
| C00055 | CMP |
| C00105 | UMP |
| C00130 | IMP |
| C00144 | GMP |
| C00239 | dCMP |
| C00360 | dAMP |
| C00362 | dGMP |
| C00364 | dTMP |
| C00365 | dUMP |
| C00575 | 3',5'-Cyclic AMP |
| C00655 | XMP |
| C00676 | dNMP |
| C00941 | 3',5'-Cyclic CMP |
| C00942 | 3',5'-Cyclic GMP |
| C00943 | 3',5'-Cyclic IMP |
| C00968 | 3',5'-Cyclic dAMP |
| C01081 | ThMP |
| C01329 | NMP |
| C02353 | 2',3'-Cyclic AMP |
| C02354 | 2',3'-Cyclic CMP |
| C02355 | 2',3'-Cyclic UMP |
| C02507 | 3',5'-Cyclic dGMP |
| C04242 | 5-Fluorodeoxyuridine monophosphate |
| C04646 | 6-Thioinosine-5'-monophosphate |
| C04713 | Isopentenyl-AMP |
| C05925 | 7,8-Dihydroneopterin 3'-phosphate |
| C06194 | 2',3'-Cyclic GMP |
| C06196 | dIMP |
| C16430 | trans-Zeatin riboside monophosphate |
| C19968 | 8-Oxo-dGMP |
| C19970 | 2-Hydroxy-dAMP |
| C20423 | alpha-D-Ribose 1-methylphosphonate 5-phosphate |
| C22274 | 8-Oxo-GMP |
| **NDP** | |
| C00008 | ADP |
| C00015 | UDP |
| C00035 | GDP |
| C00068 | ThDP |
| C00104 | IDP |
| C00112 | CDP |
| C00206 | dADP |
| C00361 | dGDP |
| C00363 | dTDP |
| C00454 | NDP |
| C00705 | dCDP |
| C01337 | XDP |
| C01344 | dITP |
| C01346 | dUDP |
| C16426 | Isopentenyl-ADP |
| C16429 | trans-Zeatin riboside diphosphate |
| C16616 | 6-Thioinosine-5'-diphosphate |
| C20176 | 8-Oxo-dGDP |
| C22235 | 8-Oxo-GDP |
| G11113 | ADP |
| **NTP** | |
| C00002 | ATP |
| C00044 | GTP |
| C00063 | CTP |
| C00075 | UTP |
| C00081 | ITP |
| C00131 | dATP |
| C00201 | NTP |
| C00286 | dGTP |
| C00458 | dCTP |
| C00459 | dTTP |
| C00460 | dUTP |
| C00677 | dNTP |
| C00700 | XTP |
| C01345 | dITP |
| C03028 | ThTP |
| C04494 | Guanosine 5'-triphosphate,3'-diphosphate |
| C04895 | 7,8-Dihydroneopterin 3'-triphosphate |
| C06197 | Adenosine 5'-triphosphate 5'-adenosine |
| C16424 | Isopentenyl-ATP |
| C16428 | trans-Zeatin riboside triphosphate |
| C16617 | 6-Thioinosine-5'-triphosphate |
| C19967 | 8-Oxo-dGTP |
| C19969 | 2-Hydroxy-dATP |
| C20422 | alpha-D-Ribose 1-methylphosphonate 5-triphosphate |
| C21310 | (8S)-3',8-Cyclo-7,8-dihydroguanosine 5'-triphosphate |
| C21751 | 5-Fluorodeoxyuridine triphosphate |
| C22234 | 8-Oxo-GTP |
| inorganic phosphates | |
| C00536 | triphosphate |
| C00013 | pyrophosphate |
| C00009 | phosphate |

## Appendix A4: KEGG manually categorized reactions

|  |  |  |
| --- | --- | --- |
| phosphatases | pyrophosphatases | triphosphatases |
| R00085 | R10541 | R04771 |
| R00185 | R10767 | R12945 |
| R00199 | R10768 |  |
| R00513 | R11029 |  |
| R00517 | R11279 |  |
| R00964 | R00619 |  |
| R00968 | Reaction of EC 2.7.9.4 |  |
| R01131 | Reaction of EC 2.7.9.5 |  |
| R01228 |  |  |
| R01567 |  |  |
| R01666 |  |  |
| R01967 |  |  |
| R02089 |  |  |
| R02099 |  |  |
| R02134 |  |  |
| R02321 |  |  |
| R03595 |  |  |
| R04068 |  |  |
| R05625 |  |  |
| R05735 |  |  |
| R05806 |  |  |
| R08233 |  |  |
| R10011 |  |  |
| R10496 |  |  |
| R11941 |  |  |
| R11964 |  |  |