

reaction\_0000001, reaction\_0000001\_reverse, reaction\_0000002, reaction\_0000003, reaction\_0000003\_reverse, reaction\_0000004, reaction\_0000005, reaction\_0000005\_reverse, reaction\_0000006, reaction\_0000007, reaction\_0000007\_reverse, reaction\_0000008, reaction\_0000009, reaction\_0000009\_reverse, reaction\_0000010, reaction\_0000011, reaction\_0000011\_reverse, reaction\_0000012, reaction\_0000013, reaction\_0000013\_reverse, reaction\_0000014, reaction\_0000017, reaction\_0000017\_reverse, reaction\_0000020, reaction\_0000020\_reverse, reaction\_0000021, reaction\_0000022, reaction\_0000022\_reverse , reaction\_0000015, reaction\_0000015\_reverse, reaction\_0000019, reaction\_0000019\_reverse  
species: M, MAPKK, MKP, M\_MAPKK\_T, M\_MAPKK\_Y, M\_MKP\_T, M\_MKP\_Y, MpT, MpT\_MAPKK, MpT\_MKP\_T, MpT\_MKP\_Y, MpY, MpY\_MAPKK, MpY\_MKP\_T, MpY\_MKP\_Y, Mpp, Mpp\_MKP\_T, Mpp\_MKP\_Y  
{M, MAPKK, MKP, M\_MAPKK\_T, M\_MAPKK\_Y, M\_MKP\_T, M\_MKP\_Y, MpT, MpT\_MAPKK, MpT\_MKP\_T, MpT\_MKP\_Y, MpY, MpY\_MAPKK, MpY\_MKP\_T, MpY\_MKP\_Y, Mpp, Mpp\_MKP\_T, Mpp\_MKP\_Y}

reaction\_0000015, reaction\_0000015\_reverse, reaction\_0000019, reaction\_0000019\_reverse  
species: M, MKP, M\_MKP\_T, M\_MKP\_Y  
{M, MKP, M\_MKP\_T, M\_MKP\_Y}

None  
species:  
{}