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| **Species** | **Finding** | **Authors, Year** |
| Alanine | Inc in obese adults | (Newgard et al., 2009) |
| Inc. in T2D adults | (Wang-Sattler et al., 2012)(Xu et al., 2013)(Villarreal-Pérez et al., 2014) |
| Inc. incident T2D adults | (Palmer et al., 2015)(Qiu et al., 2016) |
| Inc. in incident T2D European and S. Asian adult males | (Tillin et al., 2015) |
| Alpha-aminoadipate | Inc. in incident T2D adults | (Wang et al., 2013) |
| Aspartate or Asparagine | Inc. in obese adults | (Newgard et al., 2009) |
| Dec. in incident T2D adults | (Palmer et al., 2015) |
| Cysteine | Dec. in T2D adults | (Suhre et al., 2010) |
| Cystine | Dec. in obese adults | (Jeevanandam, Ramias & Schiller, 1991) |
| Inc. in obese, T2D adult females | (Fiehn et al., 2010) |
| Glutamate or Glutamine | Inc in obese adults | (Newgard et al., 2009) |
| Inc. in incident T2D adults | (Palmer et al., 2015) |
| Glycine | Dec. in obese adults | (Felig, Marliss & Cahill, 1969)(Newgard et al., 2009) |
| Dec. in T2D adults | (Wang-Sattler et al., 2012) |
| Dec. in obese T2D adult females | (Fiehn et al., 2010) |
| Dec. in incident T2D | (Wang-Sattler et al., 2012)(Floegel et al., 2014)(Palmer et al., 2015)(Yu et al., 2016) |
| Dec. in incident T2D European adult males | (Tillin et al., 2015) |
| Isoleucine | Inc. in obese adults | (Felig, Marliss & Cahill, 1969)(Jeevanandam, Ramias & Schiller, 1991) |
| Inc. in T2D adults | (Suhre et al., 2010)(Wang-Sattler et al., 2012)(Xu et al., 2013) |
| Inc. in T2D adult females | (Menni et al., 2013) |
| Inc. in incident T2D adults | (Wang et al., 2011)(Yamakado et al., 2015) |
| Inc. in incident T2D European and S. Asian adult males | (Tillin et al., 2015) |
| Leucine | Inc. in obese adults | (Felig, Marliss & Cahill, 1969)(Jeevanandam, Ramias & Schiller, 1991)(Kim et al., 2010)(Mangge et al., 2016) |
| Inc. in T2D adults | (Suhre et al., 2010)(Xu et al., 2013)(Villarreal-Pérez et al., 2014) |
| Inc. in T2D adult females | (Menni et al., 2013) |
| Inc. in incident T2D adults | (Wang et al., 2011)(Yamakado et al., 2015) |
| Inc. in incident T2D European and S. Asian adult males | (Tillin et al., 2015) |
| Lysine | Dec. in obese T2D adult females | (Fiehn et al., 2010) |
| Palmitoylcarnitine (C16) | Inc. in obese adults | (Mihalik et al., 2010) |
| Inc. in T2D adults | (Mihalik et al., 2010) |
| Inc. in incident T2D adults | (Qiu et al., 2016)(Sun et al., 2016) |
| Phenylalanine | Inc. in obese adults | (Felig, Marliss & Cahill, 1969)(Newgard et al., 2009) |
| Inc. in T2D adults | (Xu et al., 2013) |
| Inc. in incident T2D adults | (Wang et al., 2011)(Floegel et al., 2014)(Yamakado et al., 2015)(Palmer et al., 2015)(Qiu et al., 2016) |
| Inc. in incident T2D S. Asian adult males | (Tillin et al., 2015) |
| Propionylcarnitine (C3) | Inc. in obese adults | (Newgard et al., 2009)(Kim et al., 2010) |
| Inc. in T2D adults | (Mihalik et al., 2010) |
| Inc. in incident T2D adults | (Sun et al., 2016) |
| Tryptophan | Dec. in obese adults | (Jeevanandam, Ramias & Schiller, 1991)(Breum et al., 2003) |
| Inc. in obese adults | (Kim et al., 2010) |
| Tryptophan/LNAA | Dec. in obese adults | (Breum et al., 2003) |
| Dec. in obese, T2D adults | (Ashley et al., 1985) |
| Tyrosine | Inc. in obese adults | (Felig, Marliss & Cahill, 1969)(Newgard et al., 2009)(Kim et al., 2010) |
| Inc. in T2D adults | (Villarreal-Pérez et al., 2014) |
| Inc. in incident T2D adults | (Wang et al., 2011)(Yamakado et al., 2015)(Qiu et al., 2016) |
| Inc. in incident T2D European and S. Asian adult males | (Tillin et al., 2015) |
| Valine | Inc. in obese adults | (Felig, Marliss & Cahill, 1969)(Jeevanandam, Ramias & Schiller, 1991)(Newgard et al., 2009)(Kim et al., 2010) |
| Inc. in T2D adults | (Suhre et al., 2010)(Xu et al., 2013)(Villarreal-Pérez et al., 2014) |
| Dec. in T2D adult females | (Menni et al., 2013) |
| Inc. in incident T2D adults | (Wang et al., 2011)(Palmer et al., 2015)(Yamakado et al., 2015)(Yu et al., 2016) |
| Inc. in incident T2D European and S. Asian adult males | (Tillin et al., 2015) |