aptuit

Pharmaceutical Sciences

FACTSHEET

Drug Substance
Solid Form Screening (Polymorphs, Salts, Cocrystals)

Traditional Polymorph Screen
Our standard screen is designed to identify most of the solid forms of your drug substance.

Super Screen
A combination of traditional and proprietary technology, our SuperScreen™ is a comprehensive polymorph screen. We have developed and/or licensed novel proprietary technologies designed to generate new solid forms of materials. The use of these technologies in combination with appropriate traditional crystallization conditions and automation technologies gives us exceptional ability to find the useful forms of your drug substance.

Abbreviated Polymorph Screens
We have screening services to accommodate different research needs and research budgets. These fast, low-cost screens should be considered if only the more stable forms must be identified.

Focused Screen
Another low-cost, rapid screen, the Focused Screen uses GMP material and process solvents and conditions to identify potential problems associated with manufacturing. It is an ideal screen for manufacturers to check the impact of changes in manufacturing processes or for generic companies to verify solid form behavior under their specific manufacturing conditions.

MicroScreen™
For investigators with only a small amount of sample who need an excellent polymorph screen, MicroScreen™ is the answer. With only 50–150 mg of drug substance, we can carry out an effective polymorph screen and identify the different forms present. Additional material is required to generate scaled-up samples of each form and further analyze them for relative stability and solubility.

Salt Screening and Selection
Our Salt Screen involves a search for solid salts of ionizable drug products using sources of pharmaceutically acceptable counterions as well as knowledge of their properties, frequency of use in drug products, and manufacturability.

Micro Salt Screen
When sample quantities are limited, a salt selection study can be performed using our Micro Salt Screen technology. Typically 200 mg of material is required for an effective screen.

Cocrystal Screen
Cocrystals incorporate pharmaceutically acceptable guest molecules into a crystal lattice along with the API, changing the physical properties of the solid. Our Cocrystal Screen can find new solid forms to solve physical property or bioavailability problems or to enable development of improved versions of existing drug products.

Amorphous Screen
Poor aqueous solubility is frequently a problem in development of new drug products. One approach that is frequently overlooked is use of an amorphous form of the drug substance. Amorphous materials are generally much more soluble than their crystalline counterparts, and can often be formulated to be physically and chemically stable throughout the shelf life of drug product. We have numerous techniques to search for and stabilize amorphous forms of drug substance.

Additional Aptuit Capabilities
Aptuit offers a comprehensive suite of drug development services that range from candidate selection through to market, including consultancy services, API development and manufacture, preclinical and clinical technologies, pharmaceutical services, large and small scale manufacturing, IVRS, and clinical packaging and logistics, across a wide range of compounds, dosage forms and delivery systems.

For information about Aptuit's services, please call or email:

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Engineering a better drug development process.